DOCUMENT RESUME

ED 133 427 CE 007 600

TITLE	Abstracts of Doctoral Dissertations: Agricultural Education. 1949-1971.
INSTITUTION	Illinois Univ., Urbana. Div. of Agricultural Education.
REPORT NO	VT-103-587
PUB DATE	Sep 71
NOTE	77p.
EDRS PRICE	MF-$0.83 HC-$4.67 Plus Postage.
DESCRIPTORS	*Abstracts; *Agricultural Education; *Doctoral Theses
IDENTIFIERS	University of Illinois

ABSTRACT

Abstracts of 40 doctoral dissertations written by agricultural education graduates of the University of Illinois from 1949 to 1971 are compiled in this publication. Although abstract size and format varies with the individual dissertation, all abstracts include statement of purpose or problem, description of method, and presentation of findings and interpretation. Preface material notes that the 40 persons whose abstracts appear have served as professors of agricultural education, chairmen of departments of agricultural education and vocational education, deans, directors, and college presidents; that half of the group completed their degrees since 1965; and that all but three are still actively engaged in educational work. (NJ)

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ABSTRACTS OF DOCTORAL DISSERTATIONS: AGRICULTURAL EDUCATION

1949-1971

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VT-103-581

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September, 1971

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PREFACE

During the period from 1949 to 1971, 40 persons have completed doctorates in agricultural education at the University of Illinois. Seven of these 40 recipients of the doctorate were from foreign countries. Of the 40 degrees conferred during this period, 34 were Doctor of Education (Ed.D.) degrees.

The 40 persons whose abstracts are reported in this publication have exerted a tremendous influence on agricultural education throughout the United States and in the world. They have served as professors of agricultural education, chairmen of departments of agricultural education and vocational education, deans, directors, and college presidents. All but three of the individuals are still actively engaged in educational work. Many are just beginning careers in agricultural education or other educational work but two persons included in this group have retired. It is interesting to note that half of the group received their degrees since 1965.

Most of the abstracts included in this report were written by the author at the time he completed his doctoral dissertation. The titles of the dissertations and the research design used in the studies reflect the interests of the students and their advisers as well as the styles of research which were in vogue at the time of the investigations. The value of these studies go far beyond the findings reported. Each dissertation represented a worthwhile learning experience for the investigator and the staff members who worked with him.

Paul E. Hemp, Chairman
Division of Agricultural Education

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INTERNSHIP FOR PROSPECTIVE TEACHERS OF VOCATIONAL AGRICULTURE IN ILLINOIS

Lloyd J. Phipps, Ed.D.
Department of Education
University of Illinois at Urbana-Champaign, 1949

Purpose. To develop a plan of internship for prospective teachers of vocational agriculture in Illinois, based upon the demands of teaching and the needs of beginning teachers.

Method. The study involved five rather distinct parts: (1) A study of the experiences with internships in other institutions; (2) a study of the current program of teacher training at the University of Illinois; (3) a study of the problems of beginning teachers; (4) a try-out of internship over a two-year period; and (5) the development of a proposal for internship based upon the first four phases of the study and checked by authorities in the field of education.

Findings and interpretations. The study provided considerable evidence that prospective teachers of vocational agriculture at the University of Illinois are completing their undergraduate training without self-confidence, ability, or understanding in certain areas of technical agriculture. It showed that the activities and difficulties of most concern to beginning teachers were, however, in the professional field rather than in subject-matter fields. First-year teachers were especially deficient in their ability to deal with adult education, guidance, supervised farming, the FFA, planning programs, and securing and using instructional facilities and materials. Need for systematic follow-up work with first-year teachers was shown. A six-week period of student teaching was found inadequate. Students benefited from the trial internship program. An arrangement for internship is recommended.

A SUGGESTED SET OF CRITERIA FOR THE SELECTION OF STUDENT-TEACHING CENTERS IN VOCATIONAL AGRICULTURE

James Christian Atherton, Ed.D.
Department of Education
University of Illinois at Urbana-Champaign, 1950

Purposes. (1) To determine present methods of selecting student-teaching centers in vocational agriculture; (2) to determine opinions of a jury of educators relative to a tentative set of criteria for the selection of student-teaching centers; and (3) to develop a suggested set of criteria for the selection of student-teaching centers.

Method. A checklist was prepared for the purpose of obtaining opinions of teacher trainers and the practices they were following in the selection of student-teaching centers. This checklist was sent to six teacher trainers throughout the United States for suggestions on its revision prior to its use as a data-gathering device. After suggested revisions had been made, the checklist was sent to each teacher-training institution that trains teachers of vocational agriculture.

A tentative set of criteria, formulated by the writer after securing initial data on the subject, was applied to the student-teaching program in four institutions by personal visits to each of these institutions. At this time, some criteria were added, some were deleted, and others were modified.

The criteria as revised were sent to a jury of educators for concurrence or nonconcurrence and comments. This group of educators included teacher trainers in vocational agriculture, teacher trainers in general education, State supervisors of vocational agriculture, superintendents of schools, high school principals, and high school supervising teachers in vocational agriculture.

Findings and interpretations. Based on the favorable response of 80 percent or more of the educators as a jury, the author recommends 49 criteria for use in the selection of student-teaching centers. These include criteria relative to the breadth and quality of program qualifications of the teacher, physical facilities, relationships in the local school system, location of center, and others.

PROCEDURES FOR DETERMINING OBJECTIVES AND EVALUATING OUTCOMES IN AGRICULTURAL EDUCATION

Leo L. Knuti, Ed.D.
Department of Education
University of Illinois at Urbana-Champaign, 1950

Purposes. (1) To review the literature of objectives and evaluation, criticize and consolidate proposed principles, and apply the best ideas gained to agricultural education; (2) to try out in the field some innovations in selecting objectives and evaluating outcomes; and (3) to determine the present thinking and practice of Illinois teachers of vocational agriculture with regard to objectives and evaluation.

Method. A massive amount of literature was reviewed and digested. Cooperative field studies were carried out with five teachers. Returns were secured from 100 representative Illinois teachers selected in advance by random sampling.

Findings and interpretations. The nature of objectives in agricultural education was defined. Procedures for selecting and validating objectives were worked out. The relation of objectives and evaluation to learning was clarified. High school, young farmer, and adult farmer students were found interested in determining the purposes of their education, in expediting its processes, and in evaluating its results. Teachers were found to be giving a good deal of thought to objectives and evaluation, but sometimes their objectives and evaluations were agricultural, rather than educational.

USE OF ADVISORY COUNCILS IN VOCATIONAL EDUCATION IN AGRICULTURE

Marshall J. Scott, Ed.D.
Department of Education
University of Illinois at Urbana-Champaign, 1950

Purposes. To report the progress of an agricultural advisory council at Fisher from 1941 to 1949; and to study the progress of the advisory council movement in Illinois and the United States.

Methods. (1) Mr. Scott established a council in 1941 and reported its progress; (2) questionnaires were used to secure information about councils in Illinois and the United States; (3) the literature on advisory groups in agricultural education and in other fields was reviewed.

Findings and interpretations. (1) Many improvements in the Fisher community can be traced directly or indirectly to the efforts and activities of the advisory council; (2) a survey of 31 current and past council members revealed them as "enthusiastically complimentary" about the Fisher council; (3) there is general acceptance of advisory councils by leaders in agricultural education; (4) techniques not formerly available are making success with councils much more sure; (5) Illinois councils differ from councils in the rest of the United States in that they are: (a) commonly larger councils, including 9 to 12 men; (b) accustomed to meeting more frequently, usually monthly; (c) more definitely integrated into their schools; (d) continuous with arrangements for turnover of members; and (e) more systematically organized and managed.

EVALUATION AND IMPROVEMENT OF STUDENT TEACHING IN AGRICULTURAL EDUCATION AT THE UNIVERSITY OF TENNESSEE

Bonard Scott Wilson, Ed.D.
Department of Education
University of Illinois at Urbana-Champaign, 1950

Problem. The problem was to evaluate the program of student teaching in agricultural education at the University of Tennessee and to improve the program so that it would better meet the needs of future teachers of vocational agriculture in Tennessee.

Method. The evaluation was made by comparing the program in operation up to and during the 1946-47 school year with a construct of student teaching. The construct used was a statement of the author's beliefs and philosophy concerning requirements and operation of the program of student teaching in agricultural education at the University of Tennessee. The evaluation was in terms of changes needed to make the program compare more favorably with the construct.

Findings. A construct was developed which covered the following aspects of the student teaching program:

1. Determining the needs.
2. Defining objectives.
3. Evolving evaluative criteria.
4. Guidance of student teacher.
5. The curriculum of student teachers.
6. The practice period.
7. Supervision.
8. Cost of the program.
9. Records.
10. Evaluation.

The present situation (1947) was analyzed and described using the same ten headings which were used in developing a construct. The investigator identified changes needed in the present program, implemented some changes during the following two years, and prepared a revised construct of student teaching.

A PROPOSED PROGRAM OF EDUCATION FOR PROSPECTIVE TEACHERS OF VOCATIONAL AGRICULTURE IN NORTH CAROLINA

C. C. Scarborough, Ed.D.
Department of Education
University of Illinois at Urbana-Champaign, 1951

Purpose. To determine "what should be" the program of education for prospective teachers of vocational agriculture, and to propose such a program for North Carolina State College.

Method. Effort was made to secure some degree of participation of the people concerned with a program of agricultural education. The plan for the study was based upon the assumption that all people affected by a program should have a part in its development. These specific groups were (1) farm boys enrolled in vocational agriculture classes; (2) parents of boys; (3) other farmers enrolled in vocational agriculture classes; (4) students in agricultural education at North Carolina State College; (5) recent graduates now teaching; (6) supervising teachers; (7) principals; (8) faculty members at North Carolina State; and (9) leaders in agricultural education. Inquiry forms, supplemented by personal interviews, were developed and used for securing reactions from these groups.

Findings and interpretations. This study was concerned with seeking direction for needed changes rather than in determining a specific blueprint for the education of prospective teachers of vocational agriculture in North Carolina. However, specific proposals were made based upon the evaluation of the present program and the desired direction for a future program.

The 100 recent graduates now teaching are not well satisfied with some phases of their training, particularly in the area of farm skills and abilities. In the professional area they feel inadequately trained to develop out-of-school programs in the community. They desire more freedom of choice in the curriculum and more courses in agriculture and education in the first two years at college.

Reactions from other groups were generally favorable to the work of the teacher of vocational agriculture. However, particularly noticeable in the reactions of some groups was an evident lack of understanding of the major purposes of a program of vocational agriculture in a community. This seemed to be the case even with farm boys enrolled in vocational agriculture.

It is evident that many graduates of North Carolina State College are beginning their teaching with the belief that they are not ready for the many problems they face. It is believed that the student's participatory experiences in all four years, as advocated in the study, will better prepare him for the job of an educator in the local community. The study proposes that professional courses begin in the freshman year and include "summer practice" each summer until graduation. It is also proposed that student teaching be done in the junior year as well as the senior year, with better correlation of courses and practice.

PROPOSED PLANS FOR DEVELOPING CURRICULA FOR TRAINING TEACHERS OF VOCATIONAL AGRICULTURE IN ISRAEL

Khaime Pisken, Ed.D.
Department of Education
University of Illinois at Urbana-Champaign, 1952

The problem. This study is an attempt by the writer to set forth some guiding principles to help him and other persons in Israel in establishing future curricula for teacher education in agriculture. With the introduction of agriculture in every elementary school and with the evergrowing number of elementary, secondary and agricultural schools, Israel faces a critical shortage in teachers of agriculture. There is not yet an institution in Israel that trains teachers of agriculture, and there is a vital need for establishing curricula for the future training of teachers of agriculture. The shortage of teachers of agriculture is felt most in the settlements of the newcomers, who are in dire need for vocational training. However, there is also a vital need for teachers for the young and adult farmers in established communities.

Methods. In studying this problem the writer used the following procedures:

1. A thorough review of the pertinent literature in the field of teacher education in general, paying close attention to the literature pertaining to teacher education in vocational agriculture.

2. A thorough review of pertinent research studies dealing with teacher education in agriculture and in other fields.

3. Case studies of teacher education programs in a chosen sample of institutions where teachers of vocational agriculture are trained.

4. After reviewing the literature, and upon the information obtained from his case studies and through private conversations with authorities in agricultural education, the writer developed a preliminary list of "Guiding Principles" for future curricula of teacher education in vocational agriculture in Israel. These guiding principles were grouped under the following headings:

   a. Recruiting, selection and guidance of trainees.
   b. The pre-service training curriculum.
   c. The student teaching program.
   d. The facilities of the training institution.
   e. The placement of teachers.
   f. In-service teacher education.
   g. Research.
   h. Administration.

5. The writer's adviser and thesis committee agreed that this list should be presented for consideration to a jury of experts composed of 22 leading authorities in the fields of teacher training in agriculture and in other fields. With the advice of and in accordance with the judgment of his adviser and the other members of his thesis committee, the writer chose this jury.

6. The preliminary list of the "Guiding Principles" was submitted to the jury members, and changes were introduced upon the basis of their criticism and suggestions. In revising the list of principles, the writer made an effort to meet the criticism and to incorporate the suggestions of the members of his jury.

Findings. After describing the present conditions in Israel (that have a bearing on future programs of teacher education in agriculture), the writer revised and substantiated the following guiding principles:

Recruiting, Selection and Guidance of Trainees

1. In planning programs of recruiting, selection and guidance of trainees, the supply of and the demand for teachers in the state should be kept in mind.

2. The program of selecting future trainees should be a continuous one, starting with the selective admission of the trainee and extending throughout his pre-service curriculum. In this selection program, consideration should be given to as many factors as possible, and a system of individual cumulative records of prospective trainees should be provided. Trainees should also be provided with a guidance program that will serve them throughout their college career and extend to their placement and follow-up periods.

3. In recruiting prospective trainees, the assistance of teachers of agriculture in the public schools, principals or superintendents of the schools, supervisors of agricultural education, leaders of youth groups and clubs, and others who are in positions to give pertinent information should be used.

4. Trainees should be provided, as early as possible in their professional preparation, with experiences with individuals and groups of young people and adults through observations, interviews, visits to classrooms and homes and direct work with groups in agricultural clubs, Boy and Girl Scouts.

5. There should be some definite arrangement for directing the attention of trainees to the personal, professional, and ethical qualifications needed for teachers of vocational agriculture, as well as for other teachers, through a course or otherwise.

6. The importance of agricultural education to the welfare of a young nation and undeveloped country demands that the capable youth be attracted to the profession, and that they should be provided with economic security.

7. Trainees who are unfit should be discovered and eliminated as soon as possible in the training program and be oriented to other fields of study and work.

The Pre-Service Training Curriculum

1. The courses in general education, technical agriculture and professional education should be distributed throughout the four or five years of training. (The criteria for this distribution should be the needs and interests of the trainees, their ability to master the subject matter and the sequential content of the subject matter.)

2. Special "tailor-made" courses, in the areas of technical agriculture and general education, should be offered to agricultural trainees, whenever special advantages are to be gained which outweigh the disadvantages of segregated classes. (The differences between the regular courses offered to all the students and the "tailor made" ones should be in their "content and professional treatment" and not in the scholastic value attached.)

3. The program for the education of teachers of agriculture, as well as teachers of other subjects, should be based upon their duties and functions in the teaching profession, and upon their needs as individuals and citizens.

4. The training in technical agriculture should provide the prospective teachers with a working knowledge and an operative ability in all the fields of agriculture with which they will be expected to deal as teachers of agriculture. A trainee may specialize more in one or another field when conditions require, but he should not become a specialist in any one field.

5. The methods of teaching, the teacher-student planning and evaluation of courses, the self-evaluation done by the student, the extra-class activities, and all other contacts between students, teachers and other students should be considered as essential aspects of the curriculum.

6. Guidance should be given to the trainee in choosing his elective courses. Electives should be used to round out the student's personal and farming background, in order that he will be better prepared to meet his future needs.

7. The program of teacher education should help future teachers in developing an orientation to the controversial problems (political, social, education, and economic) in the country and throughout the world.

8. The program of professional education for teachers should provide a sound foundation in the social and the psychological aspects of the educational system. Such a foundation is a vital necessity for prospective teachers in comprehending their various duties (teaching, personal relations, professional and social contacts, and non-teaching activities in school and out).

9. Because of social, political, and economic factors, those planning the preservice as well as the in-service curricula should consider that teachers of agriculture will be working in any one of four types of schools or situations: (a) cities; (b) communal settlements; (c) other types of rural settlements; and (d) Arabic and other non-Jewish schools.

10. Teachers should be trained to serve the whole community (youth and adults) in their agricultural needs. (Since such a program will require all or most of the time of the teacher of vocational agriculture, he should be trained mostly in agriculture.)

11. Special attention should be given in the program to developing the ability of the trainees to talk fluently and distinctly and to the correction of their speech defects.

The Student Teaching Program

1. Training centers for student teachers should be selected cooperatively by teacher education and supervisory staffs. The program of vocational agriculture in the training center should be effective and an integral part of a good system. This program should represent the type of program that should be promoted throughout the state.

2. Candidates for student teaching should be introduced to student teaching early in their professional preparation. (The prospective teachers should be offered two periods of student teaching: the first during the junior year and the second during the senior or fifth year. They should also be provided with participating experiences in chosen schools before the student teaching period.)

3. The program of student teaching should provide trainees with ample opportunities to participate in extra-class activities of the teacher of agriculture in the school and community. Throughout the period of student teaching, the student teacher should live in the community in which the training center is located.

4. The student teacher should be aware of the fact that his training department is better than the typical department of vocational agriculture. As a future teacher, he should learn to adapt rather than to adopt his participatory experiences in the training center.

5. Student teachers should be familiarized with teaching in all the grades and age levels in which vocational agriculture is offered.

6. Not more than two student teachers should be assigned to one center at one time, in order to insure sufficient and efficient supervision by both the supervising teacher and the teacher trainer.

7. Special attention should be paid to a careful selection of the student teacher's participatory experiences. (Even the most extended and well-planned program will not provide the trainees with <u>all</u> the participatory experiences in all activities conducted by a department of vocational agriculture the year round.)

8. A training center should have as complete a program as possible in agriculture. It should provide student teachers with training experiences in (a) all-day classes; (b) young farmer classes, and/or clubs; (c) adult farmer classes; and (d) nonvocational classes in agriculture.

9. The student teaching program should be coordinated with the methods course(s). Hence the methods course(s) should start before the student teaching period, continue throughout this period, and conclude after the trainees finish their student teaching period.

10. The supervising teacher should be well trained and competent. He should possess the necessary abilities to inspire his students and associates, and to command their respect.

11. Special compensation should be provided for the supervising teachers and the schools that serve as training centers.

12. The evaluation of the student teacher's work should be done cooperatively by the student teacher, the supervising teacher, and the teacher trainer. (In this process the student teacher should become increasingly able to evaluate his own progress.)

13. Student teachers should be considered as faculty members in the training centers, and should participate in the total school program.

14. The selection of the training center for any particular trainee should be based primarily upon the present and future needs of that trainee.

The Facilities of the Training Institution

1. The institution(s) for training teachers of agriculture should be well equipped in staff, laboratories, library facilities (for technical agriculture and professional education), audio-visual aids, farm machinery, farm animals, and other facilities needed for teacher preparation in general and for agricultural trainees in particular.

2. A laboratory school that includes a department of vocational agriculture should be on the campus or in the vicinity. This school should serve primarily for observation, demonstration, and experimentation.

3. The training institution should have special workroom(s) in which the trainees may study, and have professional, social, and recreational activities through which they may gain leadership experiences. (The workroom(s) should be so equipped as to acquaint trainees with the materials, equipment, and facilities of departments of vocational agriculture in the public schools.)

Placement of Teachers

1. Every graduate should go through a period of probation of two or more years before he is fully certificated by the state department of education to teach agriculture.

2. The teacher training institution should work closely with the state department of education in placing recent graduates and other teachers of agriculture and of other subjects. This institution should maintain a central placement bureau to serve its graduates. This bureau should have a cumulative personal record of each trainee (including follow-up and in-service reports), and records and evaluations by teacher training staff.

In-Service Teacher Education

1. The program of in-service teacher education in agriculture should be the joint responsibility of the teacher trainers and supervisors with the help of all concerned. This program may be provided through an extra-mural graduate program and/or a regular graduate program on the campus, during the summers and/or throughout the year, and through a program of short, intensive courses in technical agriculture and professional education, offered on the campus or at other convenient places.

2. Summer sessions or short seminars should serve as part of the in-service program and not as a substitute for a pre-service training program. The objective of such sessions should be the in-service improvement of agricultural teachers.

3. Teacher trainers should have a cooperative arrangement with the state supervisor(s) to visit teachers of vocational agriculture and assist them with their problems.

4. A systematic "follow-up" program should be provided for the beginning teachers by the teacher trainers and/or by the former supervising teachers of these beginning teachers. (State supervisor(s) of agricultural education should cooperate in this "follow-up" program.)

5. The in-service program should include personal visits, professional conferences and conventions and provide published and mimeographed material in technical agriculture and in professional education.

6. The training institution should cooperate with the supervisory staff, farm organizations, agricultural manufacturing companies, and other agencies in collecting, preparing, and disseminating teaching aids to the different schools.

7. The teachers of vocational agriculture should develop their own organization that will assist them in improving themselves professionally.

Research

1. In order to improve the program of agricultural education in the state, the training institution(s) should develop a long-range, well-planned program of research.

2. Teacher trainers, supervisors, teachers of vocational agriculture, and graduate students should help plan and participate in the research program.

3. Facilities should be arranged for the publication and dissemination of the findings of the research.

Administration

1. Teacher education in agriculture should be an integral part of the state program of agricultural education. The State Department of Education should cooperate with the training institution(s) in the administration and functions of this program, but not control it.

2. Teacher education in agriculture should be an integral part of the total program of teacher education in the training institution and should also be a part of the total program of higher education in agriculture in the institution.

DUTIES AND RESPONSIBILITIES OF STAFF MEMBERS IN AGRICULTURAL EDUCATION IN COLLEGES AND UNIVERSITIES

Thomas Whitney Gandy, Ed.D.
Department of Education
University of Illinois at Urbana-Champaign, 1953

Purposes. The purposes of the study were (1) to describe the professional status of staff members in agricultural education in colleges and universities according to their special assignments; (2) to define and clarify the duties and responsibilities of the specialists in teacher education; (3) to determine the percentages of time spent by staff members in several areas of teacher education programs; and (4) to secure from each staff member the changes he plans to make and the changes he believes should be made in teacher education programs in the near future.

Method. Early in the study, an intensive investigation of the operation of two departments of agricultural education was made. The duties and responsibilities of staff members in the two departments were recorded and were divided into ten areas of work. A survey form for personal interviews and for mailing purposes was constructed with the information gathered from the observation of the two departments, discussions with staff members, and the review of related literature. The myriad duties and responsibilities of staff members were "telescoped" or condensed into 77 major duties and responsibilities.

The writer interviewed five staff members from as many states to check on the clarity, quality, and comprehensiveness of the survey form. A revision of the form was then made.

The group invited to participate in the study were the 168 white staff members who were employed as teacher educators in 1952-1953. Of this number, 54 were interviewed personally, and 118 responded by mail, making a total return of 90.5 percent.

Due to noticeable differences among the duties of heads of departments, the writer divided that specialty into three groups: (1) heads of large departments, or departments with four or more staff members including the department head; (2) heads of medium-size departments, or departments with two or three staff members including the department head; and (3) heads of small departments, or one-man departments. Four other groups of specialists had sufficient numbers of respondents to use in the summary. They were: (1) resident teacher educators; (2) itinerant teacher educators; (3) farm mechanics specialists; and (4) subject-matter specialists.

Summary and Conclusions

Professional status of staff members. The data showed these things concerning the professional status of staff members:

1. The largest group of respondents held the rank of full professor. Progressively fewer staff members held the next lower ranks. Heads of departments were primarily full professors, and resident teacher educators were associate professors. There were no dominant ranks for the other three groups of specialists.

2. The master's degree was held by 61.2 percent of the staff members; the doctorate by 36.8 percent; and the bachelor's degree by 2.0 percent. About half of the heads of departments and resident teacher educators held doctorates. The doctorate was held by a minority of the other specialists. The percentage holding the bachelor's degree only in 1922-1923 was 41.5, while in 1952-1953 it was 2.0 percent. The percentage holding the doctorate had risen.

3. The median number of years of service as teacher educators for all staff members was seven. The median number of years of tenure was also seven. Heads of large and medium-size departments had medians of experience of 15.5 and 17.0 years, respectively, and all other specialists had medians of 7.0 years of experience or less. The wide disparity of medians of experience as teacher educators probably was due to the influence of World War II. Heads of departments were older men, usually, and had been teacher educators since before the war, whereas the other specialities were filled either with younger men employed since the war or with men who had long experience as teachers of vocational agriculture.

4. Only one of the 152 respondents had not had experience as a teacher of vocational agriculture. The median years of such experience for all staff members was 8.0.

5. Sixty-seven of the 152 respondents had been supervising teachers. Over one-half of these 67 staff members with experience as supervising teachers were employed as teacher educators in the last six years.

6. The typical staff member works full time in agricultural education for 12 months per year with four weeks off for vacation.

Duties and responsibilities performed by staff members. The duties and responsibilities performed by one or more staff members in one-half or more of the 55 departments involved in the study are listed:

1. Providing instruction for students.

   a. Teaching courses and duties related to teaching courses:

      (1) Prepare course outlines and teaching plans for courses.
      (2) Prepare source units for courses.
      (3) Prepare charts, graphs, models, and other visual aids for courses.
      (4) Secure materials and supplies for courses.
      (5) Prepare examinations and written assignments.
      (6) Grade papers and examinations.
      (7) Provide conferences with individual students regarding course work.
      (8) Evaluate progress of students.

   b. Supervising student teaching:

      (1) Select student teaching centers.
      (2) Assist in selecting supervising teachers or critic teachers for the student teaching centers.

(3) Assist in training supervising teachers for their additional responsibility.
(4) Arrange assignment of student teachers to centers.
(5) Assist in planning participating experiences of student teachers.
(6) Supervise student teaching.
(7) Provide opportunity for trainees to observe good teaching outside the student teaching program, either before or after.
(8) Provide summer experiences for student teachers.
(9) Coordinate student teaching experiences, observation, and if available, summer practice.

2. Preparing visual aids and instructional materials:

a. Prepare visual aids for teachers in the field.
b. Prepare instructional materials for teachers in the field.

3. Working with students other than in connection with classes:

a. Sponsor one or more college student organizations.
b. Recruit and select prospective teachers of vocational agriculture.
c. Secure student personal data record from agricultural education students.
d. Keep cumulative records of all undergraduate students in agricultural education.
e. Keep cumulative records of all graduate students in agricultural education.
f. Counsel students concerning problems other than those taken up in conferences regarding course work.

4. Directing and conducting research:

a. Assist degree candidates in their research studies.
b. Locate phases of the agricultural education program which need study and clarification.
c. Conduct systematic research in those phases of the program needing study and clarification.
d. Interpret research studies for the staff and for teachers in the field.
e. Assist in making agricultural education surveys in public school districts.
f. Assist in making general education surveys and in research undertaken by public school officials and lay people.
g. Secure financial support for research.

5. Improving professionally:

a. Write professional materials for publication other than connected with course work.
b. Read professional materials other than for courses

6. Performing office and clerical work:

a. Keep financial records for the department.
b. Keep records necessary for making reports to the state office and to the institution.

c. Perform necessary clerical duties such as answering correspondence.
d. Secure secretarial assistance.
e. Delegate work for secretaries.

7. Attending and participating in professional meetings and developing better working relationships:

a. Conduct staff meetings and staff discussions.
b. Work with vocational agriculture teachers' conferences.
c. Assist with short courses for teachers of vocational agriculture.
d. Give demonstrations during short courses and teachers' conferences.
e. Work with vocational agriculture teachers in planning programs of vocational agriculture.
f. Work with school administrators in planning programs of vocational agriculture.
g. Work with school boards in planning programs of vocational agriculture.
h. Work with advisory councils in planning programs of vocational agriculture.
i. Serve as a consultant, or otherwise, in public school teachers' meetings, other than vocational agriculture.
j. Assist with high school FFA activities, such as judging exhibits and contests.

8. Performing administrative duties:

a. Plan an improved training program for undergraduates in agricultural education.
b. Plan an improved training program for graduates, including in-service education.
c. Determine teaching facilities and equipment needed.
d. Organize and maintain facilities and equipment.
e. Secure materials and supplies for the department.
f. Assist the administrative officers of the institution formulating policies for the department.
g. Assist the agricultural education staff members formulating departmental policies.
h. Execute departmental policies.
i. Coordinate the activities of the department.
j. Delegate teaching duties and responsibilities.
k. Present to the administrative officials of the institution the needs of the department.
l. Prepare a budget for the department.
m. Secure funds for the department.
n. Make departmental reports to the state office.
o. Make departmental reports to the institution.
p. Assist in formulating the state plan.
q. Recommend teachers of vocational agriculture for suitable positions.
r. Evaluate the agricultural education program continuously to improve quality and efficiency.

9. Supervising teachers in the field:

a. None.

10. Providing itinerant teacher education or in-service education:

    a. Plan and arrange off-campus courses (extension or extra-mural courses).
    b. Prepare materials for off-campus courses.
    c. Teach off-campus courses.
    d. Plan and arrange in-service education for first-year teachers.
    e. Conduct in-service education for first-year teachers.
    f. Plan and arrange for in-service education of other teachers in the field, other than credit courses.
    g. Conduct in-service education for teachers in the field other than first-year teachers and other than credit courses.

The duties and responsibilities assumed by groups of specialists, the approximate percentages of time that were spent in performing the duties, and the trends that probably can be expected in the future are as follows:

1. One-half or more of the time of four groups of specialists was devoted to providing instruction for students. These four were heads of medium-size departments, heads of small departments, resident teacher educators, and farm mechanics specialists. One-third of the time of heads of large departments was devoted to providing instruction, as was one-fifth of the time of itinerant teacher educators, and one-tenth of the time of subject-matter specialists.

   Heads of small departments and resident teacher educators teach a higher number of courses per year than any other group of specialists. The next highest number of courses taught per year are taught by heads of large and medium-size departments. Farm mechanics specialists teach fewer courses per year than any of these four groups of specialists, though their percentage of time spent in teaching was the highest. This is probably due to the amount of laboratory work there is connected with farm mechanics instruction.

   Heads of departments and resident teacher educators had most responsibility for providing student teaching opportunities. Farm mechanics specialists and subject-matter specialists had little responsibility for these duties. Three-fourths of the itinerant teacher educators had responsibility for supervising student teaching in the student teaching centers, but had little responsibility for the other duties in this area of work.

   Providing summer experiences for student teachers was reported by slightly more than one-half of the departments. However, judging by the changes planned and changes desired by staff members, the number of departments which provide summer experiences will rise rapidly within the next few years.

   One-fourth of the changes planned and changes desired were regarding improvements in the instructional programs.

2. Preparation of visual aids and instructional materials was almost exclusively the responsibility of subject-matter specialists. Seventy-two percent of their time was spent in this area. However, many staff members other than subject-matter specialists reported

that they planned or desired to make changes in their programs of work which would involve preparing more instructional materials for teachers of vocational agriculture.

3. Heads of departments and resident teacher educators had more responsibility for working with students other than in connection with classes than had the other three groups of specialists. However, the percentages for all groups of specialists were five percent or less of the time spent in performing professional duties.

   Since itinerant teacher educators are off campus much of the time and since subject-matter specialists have little contact with students, these two groups of specialists had little responsibility in counseling students.

4. In directing and conducting research, heads of large departments had most responsibility; second were heads of medium-size departments; and third were resident teacher educators and itinerant teacher educators. According to the number of changes planned and changes desired concerning research, an increase in the amount of time devoted to research by staff members probably can be expected in the future.

5. Five percent or less of the time of any group of specialists was spent in improving professionally.

6. Performing office and clerical work was closely associated with performing administrative duties. One of the most common ways of reducing work loads, as reported by staff members, was by employing additional clerical help and graduate assistants.

7. Heads of large departments had spent more of their time than any other group of specialists in attending and participating in professional meetings and developing better relationships. Farm mechanics specialists and itinerant teacher educators had spent the second and third highest percentages of time.

   Responsibility for assisting with high school FFA activities, such as judging exhibits and contests, was reported by one-half or more of the resident teacher educators, heads of medium-size and small departments, and farm mechanics specialists. It may be necessary, in some instances at least, for the heads of small departments to assume responsibility for this duty. However, for the other three groups of specialists, assisting with high school FFA is possibly one of the duties which could be eliminated from the activities of many staff members.

   Staff members normally attend the following meetings: (1) state association of vocational agriculture teachers; (2) state vocational education association; (3) regional agricultural education conference; (4) state education association; and (5) state, district or area associations of vocational agriculture teachers.

   Joint staff meetings of teacher education and supervisory staffs were irregularly scheduled by more than one-half of the staffs. Monthly

and quarterly meetings appeared to be held more regularly than other meeting schedules reported.

Nine staff members reported desired changes in participation in departmental staff meetings and in joint staff meetings. They were concerned over the lack of or irregularity of staff meetings.

8. Performing administrative duties was primarily a function of heads of departments. Department size had much to do with the amount of time and responsibility required for the performance of these duties; the larger the department, the more time and responsibility was required.

   Possibly due to the fact that they are in the agricultural education offices more than are the itinerant teacher educators, farm mechanics specialists, and subject-matter specialists, the resident teacher educators have more responsibility in performing administrative duties.

9. Supervising teachers of vocational agriculture is not a duty of teacher educators.

10. Itinerant teacher education duties are assumed largely by itinerant teacher educators. Duties requiring administrative decisions are performed by heads of departments rather than by itinerant teacher educators, whereas duties involving field work are assigned to the itinerant teacher educators.

    A rapid increase in itinerant teacher education will probably result from the planned changes reported by the staff members. More changes in this area of work were reported by resident teacher educators than by any other group of specialists.

The changes reported by staff members, both planned and desired changes, were largely in increasing itinerant teacher education, producing visual aids and instructional materials, doing more research, and making improvements in the instructional programs, including improvements in the participatory experiences of student teachers.

Changes reported which tend to decrease work loads were: (1) redefine and redistribute the responsibilities of staff members; (2) improve efficiency in planning, organizing, and coordinating activities of the program; (3) add new staff members both full and part time as the need arises; (4) employ and use more efficiently clerical assistance; (5) employ and use more efficiently the services of graduate assistants; (6) make changes in the undergraduate and graduate programs; (7) improve facilities, equipment, and arrangement; (8) reduce committee assignments; (9) reduce time spent in professional meetings and conferences; (10) simplify office routine and record keeping; (11) perform fewer duties in connection with the high school FFA; (12) make use of student assistance in the preparation of materials; (13) make changes in procedure in teacher placement; (14) quit teaching courses in general education; and (15) evaluate the total program being offered by the staff, so that if there are items of little value, they can be eliminated.

REDEFINITION OF THE CLIENTELE FOR AGRICULTURAL EDUCATION IN THE PUBLIC SCHOOLS

Gerald Blaine James, Ed.D.
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Purpose. To redefine the clientele for agricultural education, placing emphasis upon determining the male farm clientele for vocational education in agriculture. Consideration was given to: (1) ascertaining who were receiving agricultural education in the public schools; (2) developing procedures for ascertaining the attitudes of adult farmers toward adult education in agriculture; and (3) developing procedures for ascertaining the agricultural education needs of the adult male farm clientele.

Method. A summary of the 1950-51 annual reports of teachers of vocational agriculture in Illinois to the state board of vocational education was analyzed to ascertain who were receiving agricultural education in federally reimbursed departments of vocational agriculture throughout the state. Reports in the Office of the State Superintendent of Public Instruction of courses offered in all public high schools and public junior colleges in the state were analyzed to ascertain who were receiving agricultural education in the public secondary schools other than federally reimbursed vocational education in agriculture. Three communities were selected with whom to work in developing procedures for ascertaining the attitudes of adult farmers toward adult education in agriculture and for ascertaining the agricultural education needs of the adult male clientele. All three centers had active advisory councils for agricultural education. The investigator and other members of the staff in agricultural education worked closely with the agriculture teachers, advisory councils, and other individuals and committees within the school organizations in arriving at procedures. Surveys involving personal interviews with representative adult farmers were made. The number of farmers selected was 108, 70, and 180 in the three communities which comprised samples of 25 percent, 18 percent, and 18 percent of all farmers of the districts.

Findings and interpretations

1. During the 1950-51 school year, 499 of the 705 four-year public high schools in Illinois offered courses in vocational agriculture. They served 16,875 high school boys, 8,628 adults, 903 young farmers, and 7,089 veterans, or a total of 33,495 men and boys.

2. Only 15 of the 705 public high schools offered courses in agriculture other than federally reimbursed vocational agriculture. There were 241 boys and 33 girls enrolled in these courses during the 1950-51 school year.

3. The 33,769 individuals who received some type of agricultural education through the public schools during 1950-51 comprised 0.4 percent of the 8,712,176 people of the state.

   They comprised 1.7 percent of the rural population and 5.7 percent of the rural farm population 15 years of age and over. The adults taught comprised only 3.3 percent of the rural farm people 21 years of age and over, and 6.4 percent of the male rural farm group 21 years of age and over.

The high school boys enrolled in vocational agriculture comprised 11.2 percent of the Illinois boys in public high schools.

4. The data indicated that farmers who had received systematic education in agriculture found it beneficial. They evidently found the visits by the teachers of agriculture beneficial since a high percentage desired visits. Apparently the farmers interviewed had not received in school the amount of agricultural education that they want and can use.

   There are many procedures which may be used within a community to aid in ascertaining the agricultural education needs of farmers. Some of the more promising procedures appear to be: studying what farmers indicated their needs are; examining changes in farming they plan to make; studying their educational and agricultural deficiencies; studying requests of individuals and groups; maintaining liaison people between the agriculture department and community organizations, businesses, agricultural agencies, and other educational institutions or organizations; making systematic surveys of farming, farm life, and farm progress; ascertaining the interest of people; securing the opinions of people; examining census and other similar data; examining farming procedures and techniques used; and promoting and maintaining extensive personal acquaintance with community leaders and groups.

5. Apparently the procedures used were effective since a study of the three centers conducted one year after the surveys were made indicated that considerable progress had been made in developing programs of agricultural education for adult farmers.

   Throughout the study, the investigator and members of the staff of agricultural education served as resource persons and consultants, and sought to facilitate group action and interaction in leading toward possible solutions to problems. Care was taken to feed ideas or suggestions into group processes within the various communities without "forcing" ideas or procedures upon the groups. Democratic procedures and the importance of sound group operation were held foremost throughout the study.

   The investigator familiarized himself with the communities through visits, study of census data, and other means. He became familiar with techniques and procedures used by other schools to aid him in feeding information into group processes in the pilot schools. From the beginning it was recognized that procedures for ascertaining the attitudes of adult farmers toward adult education in agriculture and for ascertaining the agricultural education needs of the adult male farm clientele could not be decided by an "outsider" imposing "outside" methods upon a community.

A COMPARISON OF CONCEPTIONS OF THE ROLE OF THE TEACHER OF VOCATIONAL AGRICULTURE

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Purpose. In order to compare conceptions of the role of the teacher of vocational agriculture in the central region with reference to autism, absolutism, and reciprocity, these terms were defined and given with lists of concepts to jury members for validation.

Method. Three agricultural education groups (namely, beginners, seniors, and high school teachers), and three "agriculture" group trainers responded to three forms (namely, disagree-agree, two-choice, and three-choice forms). Coefficients of correlation were computed for scores of internal consistency and analyses of variance and "t values" were obtained for the three forms.

Findings and interpretations. It was found that, in general and within the assumptions and limitations of the study, as an individual progresses in his agricultural education, he develops gradually from autism to absolutism, and, then, to reciprocity. Compared to the change that takes place among the "agriculture" groups, the change among the agricultural education groups is, evidently, faster.

A STUDY OF THE AGRICULTURAL PROGRAMS IN THE JUNIOR COLLEGES OF THE UNITED STATES WITH GENERAL PROPOSALS FOR FURTHER DEVELOPMENT

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Purpose. The primary purposes were (1) to determine the most acceptable role of junior colleges in agricultural education, and (2) to make proposals for assisting the junior colleges to fill the role more adequately.

Method. Major phases of the study dealt with (1) the present status of programs of agriculture on the thirteenth- and fourteenth-year level in the junior colleges of the United States, (2) the opinions of two groups of educators concerning acceptable standards for programs of agricultural instruction designed for transfer to senior institutions, and (3) the problem of integrating instruction for terminal and university-preparatory students.

The present status of the departments of agriculture in the junior colleges of the United States was determined by a survey form sent to junior colleges which reported courses in agriculture. Another survey form was sent to the deans of agriculture in land-grant colleges and universities to determine the judgments and recommendations of these persons regarding the nature of agricultural instruction in junior colleges for students who expected to transfer to senior colleges of agriculture.

Findings and interpretations. Outside of the State of New York, greater emphasis in junior colleges was placed on preparing students for senior colleges than on training terminal students in agriculture.

Approximately half of the departments were staffed by only one teacher each. These departments were generally inferior to the larger departments in the academic preparation of the teachers in each area taught and in the facilities available in the department.

Most of the deans of agriculture in land-grant colleges felt that junior colleges should not offer courses in agriculture to students who planned to transfer. However, most of these deans indicated that students who had taken agricultural courses in junior colleges did as well during their last two years as did students who had taken their first two years at land-grant institutions.

The academic preparation of the typical junior college teacher of agriculture was below the minimum suggested by the deans of agriculture in land-grant institutions and somewhat above the minimum suggested by the junior college teachers themselves. The facilities available for instructional purposes were generally below the recommendations of either group.

Most of the teachers of agriculture in junior colleges recognized important differences in the programs of instruction for terminal students and those planning to transfer, but felt that the two groups could be taught satisfactorily in the same class.

OPERATIONAL INTERPRETATIONS OF THE SMITH-HUGHES ACT AS REFLECTED IN THE WRITINGS OF TEACHER EDUCATORS IN VOCATIONAL AGRICULTURE

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Purpose. The purpose of the study was to analyze the operational interpretations of the selected principles of the Smith-Hughes Act as reflected in the writings of teacher educators. Four major objectives were:

1. To identify and depict operational interpretations of selected elements of the Smith-Hughes Act as presently formulated in the writings of teacher educators.

2. To discover the interrelationships of the operational interpretations which are identified.

3. To identify operational interpretations which may be limiting factors in structuring a teacher's frame of reference.

4. To evaluate the operational interpretations in terms of selected studies relating to agricultural economics, rural sociology, psychology and education.

Recent texts and articles in the Agricultural Education Magazine were utilized as a source of interpretation by teacher educators. The interpretations were analyzed on the basis of evaluative questions for each of the four selected principles of the Smith-Hughes Act. The interpretations were treated as a dependent variable. Conditions in education and in agriculture were regarded as independent variables to which the interpretations were related. Data on conditions in agriculture and education were secured from a variety of publications. A comparison of the variables was the basis for implications given in connection with the presentation of interpretations for each of the four principles.

Findings. The interpretations for the several principles structured a program to serve human and social interests. The broad principles of the Smith-Hughes Act were given concrete meanings in terms of teaching vocational agriculture. Responsibilities of teachers of vocational agriculture were defined by the interpretations.

The ideal of proficiency appeared throughout the interpretations. Proficiency was defined primarily in terms of the farm operator position. Proficiency was elaborated in terms of guiding the "right" individuals to become farm operators and developing abilities essential for efficient production. Proficiency also comprised the general ability to work with others.

Proficiency, as defined was given a moral value. It was portrayed as "right and good" that individuals should strive for maximum efficiency in production consistent with the preservation of soil resources. Proficiency was presented as a means to achieving personal income and general satisfaction in life.

The educational approach to the proficiency ideal stressed self-help and self-determination. However, the approach was to employ a scientific basis in selecting and ordering learning experiences which would contribute to developing an individual's proficiency. The scientific basis in selecting and ordering learning experiences was to include a study of many factors involved. Student and citizen participation was to be used as a part of the educational approach. Thus, both scientific and democratic processes were linked to the proficiency ideal.

Conclusions. The evidence on conditions in agriculture seemed to indicate that a broadened and more flexible conception of proficiency was required. Substantial gains in productive efficiency had been made. Further increases in production were in prospect. The achievement of gains in productive efficiency and other factors had created new problems. Some farm families had yet to benefit very much from technological advances. Institutional and idealogical factors appeared to be blocking the progress of some farm families.

Significant new conditions in education also appeared to favor a revision in the proficiency ideal, and in certain interpretations. The extension of educational opportunity for both youth and adults marked progress toward the goal of equal educational opportunity. Recent research pointed to the necessity of educating the social group as a means to insuring changes in practice. Evidence also indicated that individual needs may be more effectively met through giving adequate recognition to the social environment. New concepts of public participation in educational control had emerged. On the whole, the new conditions in education required an expanded and more flexible concept for the proficiency ideal.

LOCAL POLICY MAKING FOR EDUCATION IN AGRICULTURE IN SELECTED PUBLIC SCHOOLS OF ILLINOIS

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Purpose. To determine: (1) The genesis and status of policies for education in agriculture in selected public schools of Illinois; (2) the knowledge of policies and programs for agricultural education in the community possessed by persons affected; (3) the perceptions of persons affected with respect to operational effectiveness of policies and programs and the changes needed; and (4) the perceptions of persons affected with respect to methods and avenues for effecting changes in school policies and programs in agricultural education.

Method. A case study was made of three selected school communities. School records were searched and the school superintendent, high school principal(s), vocational agriculture teacher(s), board members, and 30 laymen, selected at random, were interviewed in each community to ascertain knowlege and perceptions regarding provision of agricultural education for the community and knowledge of policies in seven major areas, i.e., fitness to participate; provision of teachers; provision and use of buildings and equipment; finance, publicity and public relations; interpretation and implementation of policies; and intraschool relationships.

Findings and interpretations

1. A general lack of knowledge and much misinformation and misinterpretation existed with respect to school policies for education in agriculture. Many thought policies were actually in operation despite the fact that none existed in written form.

2. In general, people knew more and had more accurate knowledge about programs for the high-school-age group than those for out-of-school groups. Laymen in particular exhibited very little knowledge about the existence or operation of the out-of-school programs.

3. People were interested in schools and were willing to talk about them, despite the fact that many felt they were not competent to provide the best information.

4. Published materials were not effective media for acquainting the laymen with the school programs in agricultural education. Knowledge had been gained through hearsay and through talking with school children.

5. People, laymen and professionals alike, were generally well satisfied with the programs in agricultural education being provided by the schools and did not desire any particular changes.

6. There was a very strong feeling among all persons interviewed regarding the need for policies in all areas examined. However, board members felt less need for policies than the other interviewees.

7. There was a lack of knowledge regarding the reasons for inaugurating agricultural education programs in the schools or how they had originated.

8. Only those working directly with the programs were familiar with them, and their knowledge was limited and in many cases erroneous.

9. The communities differed widely in their concepts of the best way to solve school problems.

10. Board members and superintendents tended to restrict to themselves the responsibility for formulating and effecting changes in school policies or practices in agricultural education.

11. Principals perceived that changes in school policies or practices in agricultural education should be accomplished by an advisory council or community representatives meeting with the board of education.

12. Agriculture teachers tended to be oriented primarily toward the community; they mentioned school officials only when approval was needed.

DEVELOPMENTAL TASKS OF PROSPECTIVE AND PRESENT FARMERS IN A SELECTED ILLINOIS COMMUNITY

Paul E. Hemp, Ed.D.
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University of Illinois at Urbana-Champaign, 1955

Purpose. (1) To determine whether 12 postulated tasks had been developmental tasks of a group of prospective and present farmers in a selected Illinois community; (2) to determine when these farmers had begun the performance of these tasks; (3) to determine when community leaders thought these tasks should be assumed; and (4) to seek the judgment of a group of capable and experienced teachers as to times during a lifetime in which instruction related to these tasks should be started.

Method. A questionnaire was used which listed 117 responsibilities, each of them related to one of the 12 tasks. Sixty-four high school boys, young farmers, adult farmers, and older farmers were asked to indicate the ages at which they first assumed 117 responsibilities. Twenty-five Illinois teachers of agriculture were asked to indicate the ages at which each of the 117 responsibilities could be most effectively learned by most farmers. Eleven community leaders who influenced farmers were asked to indicate the age at which most farmers were expected to assume the 117 responsibilities.

Findings and interpretations

1. Sixty-eight percent of the responsibilities which a majority of the farmers had assumed were first undertaken at the young farmer level.

2. The first year of farming was the year in which these farmers had assumed the most new responsibilities.

3. The high school boys and young farmers studied had assumed more of the 117 responsibilities than the adult farmers and older farmers had assumed during comparable periods of their lives.

4. Most of the new responsibilities assumed by the adult farmers and older farmers were responsibilities related to innovations in farming.

5. A majority of the community leaders reported that 68 percent of the 117 responsibilities should be first assumed at the young farmer level.

6. A majority of the cooperating teachers reported that most young farmers were ready to learn 61 percent of the responsibilities.

7. Developmental tasks which began at each age level are:

High school

a. Achieving emotional and financial independence.
b. Assuming social and civic responsibilities.
c. Raising crops.
d. Raising livestock.
e. Becoming responsible for one's health.

Young farmers

a. Taking care of the soil and other resources.
b. Starting a family and maintaining a favorable home environment.
c. Getting started in farming.
d. Developing intellectually.
e. Getting along with people.

Older farmers

a. Learning to adjust to old age.

RECONSTRUCTION OF THE UNDERGRADUATE PROFESSIONAL COURSES IN AGRICULTURAL EDUCATION AT THE UNIVERSITY OF TENNESSEE

Rufus Wilford Beamer, Ed.D.
Department of Education
University of Illinois at Urbana-Champaign, 1956

Purpose. (1) To determine the strengths and weaknesses of the current undergraduate professional courses in agricultural education; (2) to establish the duties, responsibilities and opportunities of teachers of vocational agriculture; (3) to develop appropriate general and special objectives in professional agricultural education; (4) to suggest learning experiences that would enable students to accomplish the stated objectives; (5) to decide on sequence and placement of learning experiences; (6) to establish time allotment for experiences; (7) to establish evaluative criteria and procedure for learning experiences; (8) to determine a general methodology of teaching; and (9) to establish guidance functions and procedures.

Method. Selected literature on curriculum development was reviewed. The objectives of this review were (1) to identify some major concepts and practices in the field of curriculum development, and (2) to synthesize these findings into a set of guiding principles for use in making this study. Principles were developed in the following areas of curriculum construction: Definitions and limitations; objectives and evaluation; determining content; determining sequence of experiences and courses; methods of instruction; and guidance and counseling.

Data for the study were collected from several sources. The writer interviewed school officials, high school teachers, high school principals, and laymen in six selected public school systems in Tennessee. The interviews had two major purposes: (1) to get information to assist in defining the job of the teacher of vocational agriculture, and (2) to gather evidences reflecting strengths and weaknesses in the professional training of teachers of vocational agriculture.

Two questionnaires were administered to selected high school principals and teachers of vocational agriculture. Supervisors of vocational agriculture, supervisors of student teachers, teacher educators, and student teachers completed certain sections of one of the questionnaires. One questionnaire was designed to provide data on the importance of certain abilities in teaching vocational agriculture, and the other to uncover weaknesses in the current program of professional agricultural education at the University of Tennessee. A third questionnaire was administered to high school students in vocational agriculture to determine how they felt about their programs.

Findings and interpretations. The people interviewed were almost unanimous in their beliefs that community programs of agricultural education should include instruction for high school boys, young farmers, and adult farmers. With few exceptions, they would limit the enrollment in high school classes to students who have access to farming facilities, and who are interested in farming as an occupation.

Ability areas rated as essential or desirable for teaching vocational agriculture by a high percentage of respondents were as follows: (1) ability to establish and maintain relationships; (2) ability to determine community

agriculture needs; (3) ability to prepare an agricultural education program; (4) ability to establish and maintain an advisory council; (5) ability to provide and maintain departmental facilities; (6) ability to teach high school classes in vocational agriculture; (7) ability to direct programs of supervised farming; (8) ability to direct programs of farm mechanics; (9) ability to advise a Future Farmers of America Chapter; (10) ability to provide guidance to students; (11) ability to organize and conduct young and adult farmer classes; (12) ability to continue professional growth.

Based on the data of this study, the following courses in agricultural education are proposed for students at the University of Tennessee (credit is in quarter hours):

(1) 2--. Introduction to Agricultural Education. (Two-hour elective)

(2) 3--. Supervised Farming and the Future Farmers of America. (Three hours credit)

(3) 3--. Methods and Facilities in Teaching Vocational Agriculture. (Three hours credit)

(4) 3--. Organizing and Teaching Young and Adult Farmer Courses. (Three hours credit)

(5) 4--. Supervised Teaching in Agricultural Education. (Nine hours credit)

(6) 4--. Developing a Program of Vocational Education in Agriculture. (Six hours credit)

BASIC ISSUES IN FARM MECHANICS EDUCATION WITH IMPLICATIONS FOR THE PRE-SERVICE EDUCATION OF TEACHERS OF VOCATIONAL AGRICULTURE

John Wilbur Matthews, Ph.D.
Department of Education
University of Illinois at Urbana-Champaign, 1957

Purpose. To discover and identify important basic issues in farm mechanics education, to obtain evidence bearing on these issues, and to apply conclusions to the improvement of farm mechanics programs, including replanning the pre-service teacher education program in farm mechanics at the University of Illinois.

Method. A list of basic issues in farm mechanics education was developed. Pertinent literature was reviewed. Personal interviews were conducted with groups of young farmers, with a selected group of Illinois teachers of vocational agriculture, and with selected individuals from businesses and professions related to farm mechanics. Data from all sources were analyzed and summarized. Conclusions were drawn and applied to a proposed pre-service teacher education program in farm mechanics at the University of Illinois.

Findings and interpretations. Findings and conclusions suggested the following principles:

1. Course objective should be determined and stated in terms of student needs and abilities to be developed.
2. Students should participate in planning, setting goals, and evaluating outcomes of instruction.
3. Provision should be made for individual differences and for the previous learning experiences of students.
4. Considerable importance should be placed on developing abilities and understandings in farm power and machinery, with emphasis on maintenance, service, and field adjustment.
5. Efforts should be made by instructors to awaken, guide, and develop students' interests through educationally sound instruction related to the needs of teachers of vocational agriculture.
6. Students should be provided ample opportunity to solve problems and exercise mechanical judgments.
7. Attitudes and appreciations should be taught by example and units of related instruction.
8. Course content should be revised frequently to keep abreast of new developments.
9. Opportunities for student guidance should be utilized fully.
10. School shop facilities should have a positive influence on university facilities, but the university should assume a position of state-wide leadership in providing adequate shop facilities for farm mechanics.
11. Pre-service education in farm mechanics should not be considered terminal. Opportunities should be provided for the development of additional farm mechanics abilities through graduate and other in-service courses for teachers.

THE SELECTION, PREPARATION AND SUPERVISION OF ASSISTANT INSTRUCTORS OF ADULT COURSES IN VOCATIONAL AGRICULTURE IN THE PUBLIC SCHOOLS OF ILLINOIS

John Richard Craddock, Ed.D.
Department of Education
University of Illinois at Urbana-Champaign, 1960

The study involved 46 of the 71 laymen used as instructors of adult farmer courses in the public schools of Illinois during the 1955-56 school year and 50 of the 64 teachers of vocational agriculture supervising them.

The purpose of the study was to develop a unit of instruction for teachers of vocational agriculture on the selection, preparation, and supervision of assistant instructors of adult courses in vocational agriculture in the State of Illinois. To aid in planning the content of instruction necessary in these three areas, checklists of problems were designed to identify: (1) problems with which teachers of vocational agriculture and assistant instructors were concerned, (2) the respondents' estimates of the seriousness of these problems, and (3) the extent to which the two groups of respondents agreed regarding the problems of assistant instructors. The checklists were developed with the aid of a jury composed of three teachers of vocational agriculture and two assistant instructors. One checklist including 30 statements dealt with the professional problems confronting teachers of vocational agriculture when using assistant instructors. The other checklist including 26 statements dealt with the professional problems confronting laymen when teaching adult farmer courses in agriculture.

The statements in the checklist for teachers of vocational agriculture covered the following five areas of professional problems regarding assistant instructors: (1) using, (2) locating and selecting, (3) training, (4) supervising, and (5) references and teaching aids available.

The statements in the checklist for assistant instructors covered the following five areas of professional teaching problems: (1) philosophy of adult farmer education, (2) psychology of adult learning, (3) planning for, preparing for, and teaching courses, (4) evaluating the effectiveness of their teaching and conducting follow-up of instruction, and (5) keeping records and making reports.

The following were the findings of the study:

Teachers of vocational agriculture were more concerned with the problems involved in training assistant instructors than with problems in the other four areas studied, although they saw themselves as having problems in all five areas.

Assistant instructors were usually more concerned with organizing and teaching subject matter than with deciding the subject matter to teach. They did not consider their problems to be as serious as the teachers of vocational agriculture considered them to be. They did not see their problems in the same order of importance as the teachers of vocational agriculture saw them. Age, amount of teaching experience, type of course being taught, and amount of schooling of the assistant instructors did not seriously affect the way the assistant instructors viewed their problems.

The assistant instructors believed the evaluation of their teaching to be their most serious problem. The teachers thought that the most serious problems of the assistant instructors were those involved in preparing to teach a course.

After reviewing the literature, the findings of the surveys and the experience of the writer, a unit of instruction for teachers of vocational agriculture on the selection, preparation, and supervision of assistant instructors was developed which included information on (1) using assistant instructors, (2) locating and selecting assistant instructors, (3) helping assistant instructors grow professionally, (4) supervising assistant instructors, and (5) materials useful in working with assistant instructors. The findings regarding the professional problems of assistant instructors were utilized in the problem area entitled "helping assistant instructors grow professionally."

MAJOR FINDINGS OF A STUDY OF PARENTAL ATTITUDES TOWARD VOCATIONAL AGRICULTURE

Roland Frederick Espenschied, Ed.D.
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University of Illinois at Urbana-Champaign, 1961

Purpose. The major purposes of the study were to determine: (1) why parents believed their sons have enrolled in vocational agriculture; (2) why parents wanted their sons to enroll in vocational agriculture; (3) the changes parents believed vocational agriculture had caused in their sons; (4) what parents considered to be the most valuable parts of vocational agriculture; (5) the education parents considered useful regardless of future occupations; (6) what parents expected their sons to learn from vocational agriculture; (7) the benefits from farm mechanics training that parents had perceived; (8) the benefits from supervised farming programs that parents had perceived; (9) the benefits from membership in the FFA that parents had perceived.

Method. The study is based on the data received from personal interviews with 154 parents whose sons had been enrolled in vocational agriculture three or more years. The parents of seven students were interviewed in each of 22 selected communities in Illinois. Communities were selected throughout Illinois where the teacher of vocational agriculture had been continuously employed for at least ten years. By this method good situations were chosen deliberately.

A postal card, signed by the principal, granted permission to conduct the interviews. These cards were used to introduce the interviewer to the parents who were interviewed. This technique seemed effective because parents were quite willing to talk once assured that the interviews were confidential. Only two interviews had to be terminated because the parents did not respond.

Conclusions

1. The parents interviewed were interested in vocational agriculture and were willing to talk about the program. Most of the parents seem to prize vocational agriculture highly.

2. Many of the parents interviewed were uninformed about vocational agriculture. A large percentage stated "No expectations," or gave vague or disorganized responses.

3. The parents interviewed seemed to expect other changes in their sons in addition to increased agricultural knowledge.

4. The parents interviewed expected vocational agriculture to provide technical agricultural knowledge, practical experience, and skills for their sons.

5. Most of the parents interviewed believe that their sons had enrolled in vocational agriculture because they were interested in agriculture or because of personal choice. Many of the parents believed that vocational agriculture should logically follow a 4-H program.

6. Understandably, the parents interviewed were not certain as to which of the changes in their sons had been caused by vocational agriculture. They reported that many factors had caused changes in their sons, but they believed that vocational agriculture had been an important factor in causing some of these changes.

7. Many of the parents interviewed believed that the education received by their sons had influenced them toward becoming persons with better moral character and more democratic and cooperative attitudes, and had made them more effective citizens.

8. Many of the parents interviewed had perceived benefits of the FFA but did not know what to expect from it.

9. The parents interviewed mentioned frequently the importance of the association between the teachers of vocational agriculture and their sons.

10. The parents interviewed seemed to expect what they had experienced. Parents generally liked the education their sons were receiving. The responses from parents indicated that they had not thought much about education or developed clear-cut expectations.

11. The parents interviewed seemed to leave the impression that they desired more systematic instruction in farm mechanics. The interviewer developed the impression that the parents believed that their sons had been receiving instruction in farm mechanics, but that it had been superficial.

12. The parents interviewed did not mention awards as often as might be expected. They sometimes mentioned the achievements of their sons, but indicated that their sons were lucky to receive awards.

SOCIO-CULTURAL PROBLEMS AND THE ROLE OF AGRICULTURAL EDUCATION IN THE UNITED ARAB REPUBLIC

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University of Illinois at Urbana-Champaign, 1962

Purpose. To examine some of the fundamental socioeconomic and cultural factors which affect the decision to enter upon farming on the part of those who have studied agriculture, propose a new role for agricultural education as an agent responsible for inducing social change in the UAR, and provide a general framework within which the role of agricultural education in newly developing countries can be better understood.

Method. Data and information were secured from official documents and pertinent literature. The study presents an analysis of two sets of factors chosen arbitrarily and treated separately. The analysis is developed in terms of (a) farm land availability, (b) occupational opportunities, (c) the social prestige assigned to farming, and (d) cognitive dissonance, economic motivation, and social pressure. A comparative study of agricultural systems in nine countries in various developmental stages was also conducted to search for some general principles concerning the relationship between studying agriculture and establishment in farming.

Findings. Although only two percent of the graduates of the secondary agricultural schools in the UAR had become established in farming, 80 percent of that small number quit farming within a short period of time and sought off-farm employment.

The failure of agricultural education to be followed by establishment suggested that there were factors outside education which determined the outcome of educational planning. It was found that the tremendous increase in population without a proportionate extension of the arable area had resulted in unavailability of farm land. While the population increased 378 percent over the last 80 years, the arable land and the crop-surface area increased only 25 and 51 percent, respectively. Establishment in farming through farm land ownership or rentals was found to be extremely difficult since it was determined by economic factors until 1952 and by law after that. Unemployment and underemployment were widespread in farming, and there were relatively more occupational opportunities outside. Farming has been assigned a low position on the scale of social prestige and power in the UAR. The cognitive structure of the Egyptian graduate, his economic aspirations, and the social pressure exerted on him have discouraged him from becoming established.

The study concludes that agricultural education is not the determinant in becoming established in farming in the UAR, that education seems to be viewed by the public as a means of attaining social mobility, and that establishment occurs in the absence of other occupational alternatives. It suggests that agricultural education must be provided for those who are already established.

STATE POLICIES FOR DISTRIBUTING STATE AND FEDERAL FUNDS FOR VOCATIONAL EDUCATION IN AGRICULTURE TO LOCAL SCHOOL DISTRICTS

James Robert Warmbrod, Ed.D.
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Purpose. To identify state policies for reimbursing local school districts in 1960-61 for programs of vocational education in agriculture and any differences in programs of vocational education in agriculture associated with different state systems for reimbursing local school districts.

Method. Data were obtained from questionnaires returned by state supervisors of agricultural education in 48 of the 50 states. Federal and state statutes and appropriation acts were used as primary sources of data. The nine states selected for a study of policy and program changes were California, Connecticut, Illinois, Indiana, Kentucky, New York, Utah, Virginia, and Wisconsin. Data for these states were obtained from state plans and annual financial, statistical, and descriptive reports on file in the U.S. Office of Education, and through correspondence or an interview with the state supervisor of agricultural education in each state.

Findings. More than 40 states had adopted policies which provided reimbursements from state or federal funds for a portion of the following costs incurred by local boards of education: salaries paid teachers of vocational agriculture for teaching all-day classes; salaries paid regular teachers or special instructors for teaching young farmer and adult farmer classes; and travel expenses. Nine states provided reimbursement for a portion of the costs of instructional equipment and supplies.

State and federal funds for vocational education in agriculture were distributed most frequently to local school districts as reimbursement of a percentage of the expenditures incurred. Other methods of distributing funds were: (1) reimbursement as flat grants per school, per student, per approved young farmer or adult farmer class, or per hour of out-of-school instruction; (2) reimbursement on the basis of a sliding scale whereby newly established programs received a higher rate of reimbursement; (3) reimbursement as additional salary for summer work; and (4) reimbursement on the basis of an excess cost formula.

The study of policy and program changes in the nine states from 1951 to 1960 indicated some relationship between a state's reimbursement policy and the out-of-school program conducted. With the exception of one state, the states which had adopted policies making reimbursement for the total program contingent upon the out-of-school program conducted had a higher percentage of the total enrollment in vocational agriculture made up of young farmers and adult farmers than the states reimbursing out-of-school programs separately from the all-day program. Also, the states with policies requiring young farmer and adult farmer instruction as a part of a complete program provided out-of-school classes in a higher percentage of the schools with all-day programs.

COMPARISON OF CERTAIN ABILITIES NEEDED BY WORKERS IN LICENSED NURSERIES AND LICENSED ORNAMENTAL HORTICULTURE BUSINESSES

Roy Dean Dillon, Ed.D.
Department of Education
University of Illinois at Urbana-Champaign, 1965

Purpose. To determine whether separate and specialized agriculture courses are needed for workers in nurseries and for workers in ornamental horticulture businesses. An additional purpose was to determine the content of these courses.

Method. The study involved three major tasks: (1) the development of a questionnaire containing 100 items of knowledge in agriculture in the four areas of horticulture, agricultural chemicals, floriculture, and soils; (2) interviewing of head workers in the four job titles of general director, salesman, supervisor, and field worker from a random sample of 20 licensed grower nurseries and from a random sample of 20 licensed horticulture retail and landscaping businesses in northeastern Illinois; and (3) the statistical analysis of the data for each of three hypotheses. Statistical techniques used were the z test and analysis of variance.

Findings. In testing the first major hypothesis pertaining to whether significant differences existed in the kinds of knowledge needed by workers with comparable job titles in licensed nurseries and in licensed ornamental horticulture businesses, the z test indicated significant differences for: (1) ten of the 100 items of knowledge for general directors; (2) 12 of the 100 items of knowledge for salesmen; (3) two of the 100 items of knowledge for supervisors; and (4) four of the 100 items for field workers. The number of items of knowledge needed by general directors, salesmen, supervisors, and field workers ranged from 84 to two according to the job title and the type of horticulture business.

The second major hypothesis was concerned with whether significant differences existed among the means of groups of items of knowledge across the four job titles studied in licensed nurseries. The "F" statistic revealed a significant difference for 17 of the 19 groups of items of knowledge studied.

The third major hypothesis investigated whether significant differences existed among the means of groups of items of knowledge across the four job titles studied in licensed ornamental horticulture businesses. The "F" statistic revealed significant differences for all of the 19 groups of items studied. For both the second and third hypotheses, it was concluded that differences in the level of ability needed by general directors, salesmen, supervisors, and field workers probably represented differences due to the way the workers used their agricultural knowledge in their jobs.

The content for a total of 13 basic courses or units was recommended for persons preparing to enter horticultural jobs. The content for a total of two specialized courses or units was recommended for persons in one, two, or three of the job titles studied.

A COMPARISON OF CERTAIN KNOWLEDGES IN AGRICULTURE NEEDED BY WORKERS IN FARMING, IN GRAIN ELEVATOR BUSINESSES, AND IN AGRICULTURAL EQUIPMENT BUSINESSES

Keith Eugene Fiscus, Ed.D.
Department of Education
University of Illinois at Urbana-Champaign, 1965

Purpose. To determine the vocational and technical education in agriculture needed for prospective workers in farming, in grain elevator businesses, and in agricultural equipment businesses.

Method. A questionnaire was developed to determine the knowledge of agriculture that is needed. The questionnaire items were categorized into the following knowledge areas: (1) livestock, (2) crops, (3) soil fertility and management, (4) agricultural resource conservation, (5) agricultural mechanics, (6) agricultural power and equipment, and (7) agricultural business management.

In each of the jobs of (1) farm manager, (2) grain elevator manager, (3) grain elevator operator, (4) grain elevator salesman, (5) grain elevator deliveryman, (6) agricultural equipment manager, (7) agricultural equipment mechanic, (8) agricultural equipment salesman, and (9) agricultural equipment set-up man 20 employees were interviewed by the investigator. Businesses were randomly selected from the fields of farming, grain elevator, and agricultural equipment in a 14-county area of east-central Illinois.

A quasi-split-plot design analysis of variance test was used to determine whether or not there were significant differences between the mean scores for workers in the primary jobs and between the mean scores for the agricultural knowledge areas. Duncan's Multiple Range Test and the *t*-test were used to identify (1) the groups of workers with significant mean scores, and (2) the significant agricultural knowledge areas and the significant items of knowledge needed by workers employed in nine job categories in three agricultural businesses.

Findings. (1) Workers in each of the four primary jobs in grain elevator businesses needed differentiated knowledges in the seven agricultural knowledge areas; (2) workers in each of the four primary jobs in agricultural equipment businesses needed differentiated knowledges in the seven agricultural knowledge areas; (3) workers in comparable jobs, regardless of the kind of agricultural business in which they were employed, needed differentiated knowledges in the seven agricultural knowledge areas; (4) workers in farming, in grain elevator businesses, and in agricultural equipment businesses each needed differentiated knowledges in the seven agricultural knowledge areas; (5) workers in grain elevator businesses needed different knowledges than the workers in the agricultural equipment businesses in the seven agricultural knowledge areas.

Thirty-eight instructional units were recommended for prospective workers in farming, grain elevator and agricultural equipment for nine job categories. Fifteen of the 38 instructional units were basic units recommended for high school 20, were advanced units and three were specialized units recommended for post-high school and the continuing education levels. It was recommended that workers in seven of the nine agricultural job categories needed post-high school and continuing education in agriculture.

AN EXPERIMENTAL STUDY TO EVALUATE THE EFFECTIVENESS OF CERTAIN STRUCTURED TEACHING MATERIALS

Norman D. Ehresman, Ed.D.
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University of Illinois at Urbana-Champaign, 1966

Purpose. To ascertain the relative effectiveness of structured, printed instructional materials as compared to unstructured, printed instructional materials.

Method. Two groups of ten schools each were randomly selected from all the schools in Illinois which offered vocational education in agriculture. One group of ten schools was randomly designated as the experimental group and the other group of ten schools was designated as the control group. The teachers of agriculture in all 20 schools were asked to teach a unit on agricultural cooperatives and administer a pre-test and post-test. The only difference between the two groups was that the teachers in the experimental group had access to the experimental variable and the teachers in the control group were denied that variable. The experimental variable was a structured source unit designed to assist teachers in organizing and teaching a unit on agricultural cooperatives. The effectiveness of the experimental variable was determined by testing the pupils knowledge of agricultural cooperatives at the close of the unit of instruction.

Findings. The difference in mean post-test scores of pupils taught by the teachers in the experimental group and the pupils taught in the control group was not significant at the .05 level when tested with the *t* test.

The reactions of the teachers using the structured source unit were favorable. The teachers in the experimental group, those using the structured source unit, expressed a desire to have similar source units prepared for them on other subjects. Providing teachers with structured source units, containing teaching outlines, did not result in increased pupil achievement nor did it result in decreased pupil achievement. Structured source units may be a valuable aid to teachers because of the time saved during the planning and pareparation for a unit of instruction.

Teachers of vocational education in agriculture will include new subject-matter content in their courses if instructional materials are available. Preparation of structured instructional materials may motivate teachers to upgrade their courses and include new content instead of continuing to teach obsolescent subject matter. Maximum benefits from structured instructional materials may not be realized unless teachers are aware of the materials and are given assistance in utilizing the materials. The opinion of the researcher is that it is not enough to prepare materials for teachers. Teachers need to be informed of the assistance the materials will provide and motivated to make effective use of the materials.

THE RELATIONSHIP OF SOCIO-ECONOMIC STATUS OF PUPILS TO THEIR COMPREHENSION OF REFERENCE MATERIALS WRITTEN AT DIFFERENT LEVELS OF READABILITY

Glenn Warren Hayes, Ed.D.
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University of Illinois at Urbana-Champaign, 1966

Purpose. To ascertain whether or not a relationship existed between the socio-economic status of pupils and their comprehension of reference materials written at different levels of readability.

Method. Ninety-six ninth-grade pupils enrolled in vocational education in agriculture courses in 21 different high schools in Illinois comprised the sample for this study. The instructional materials used were selected from Vocational Agriculture Service Unit 1037, Caring for the Sow and Litter at Farrowing Time. These materials were tested for reading grade level, rewritten to an easier reading level, and printed in the form of a folded booklet. A criterion test composed of 30 multiple-choice items was constructed to measure the pupils' comprehension of the material. The population was classified into socio-economic classes and randomly placed into control and experimental groups. The pupils read either the original or the rewritten materials and responded to the criterion test. The pupils also responded to Test Six of the Iowa Test of Educational Development. The data collected were treated with analysis of variance, analysis of covariance, and Duncan's multiple range tests.

Findings. Differences in ability to understand the principles presented in the written materials were indicated between the socio-economic groups. The mean scores of the middle working class were significantly higher than the scores of either of the other two socio-economic classes. This difference was still present when the data were tested using an analysis of covariance with reading comprehension as the covariate. Duncan's multiple range test revealed no significant difference between the working class and the middle and upper class.

An analysis of variance indicated differences between the experimental and the control group scores on the recall portion of the criterion test. An examination of the treatment means revealed that the pupils who read the rewritten instructional material scored higher than did those pupils who read the original form of the instructional materials.

No significant differences were found between the scores of the three socio-economic groups of pupils on the recall portion of the criterion test. When the data were tested using an analysis of covariance with reading comprehension as the covariate, the differences between treatments were not statistically significant at the .05 level.

No statistically significant differences were found between the reading comprehension scores of the socio-economic groups reacting to the Iowa Test of Education Development nor between the scores of the groups who read either the original or the rewritten version of the instructional material.

The total scores of pupils in each of the three socio-economic groups on the criterion test were not significantly different from each other at the

.05 level. There was no significant difference between the total scores of those pupils who read the original version or the rewritten version of the instructional materials.

There were no statistically significant differences in achievement between levels of socio-economic groups when the scores on the application portion of the criterion test were examined with the analysis of variance technique. No differences were apparent between the two groups who received the different instructional materials. The analysis of covariance with reading comprehension scores as the covariate did not reveal any significant differences between the socio-economic groups or between the two treatment groups.

RELATIONSHIP OF SOCIO-ECONOMIC POSITION TO THE CONNOTATIVE MEANING OF CERTAIN WORDS USED IN VOCATIONAL AGRICULTURE

Martin B. McMillion, Ed.D.
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University of Illinois at Urbana-Champaign, 1966

Purpose. To determine whether or not pupils classified into three socio-economic groups in each of the four secondary school grades placed a significantly different connotative meaning on selected words and phrases which are of importance to vocational education in agriculture, to determine whether or not the connotative meaning the agriculture teachers of these pupils placed on the words and phrases was more like that of certain classifications of pupils than other classifications of pupils, and to determine the extent to which teachers recognize any difference in connotative meaning for selected words and phrases which may exist among the various classifications of pupils.

Method. Pupils studying vocational agriculture in 21 Illinois high schools were classified into three socio-economic groups in each of the four high school grades by use of the Sims SCI Occupational Rating Scale. A stratified random sample of 240 pupils, composed of 20 pupils from each of the 12 stratifications of pupils, and 21 teachers of agriculture completed a semantic differential instrument under the supervision of the researcher. Respondents indicated the connotative meaning they placed on the words and phrases by judging them against Likert-type scales consisting of a good-bad continuum, an important-unimportant continuum, and other similar continuum scales bound by adjectives which were opposite in meaning. Multivariate analysis of variance was the major statistical procedure employed in the study. The hypotheses were tested at the .05 level of significance.

Findings. The secondary school grade level of pupils studying vocational agriculture was not related to the connotative meaning placed on any of the 11 words or phrases studied. The socio-economic level of pupils was related to the connotative meaning vocational agriculture pupils placed on the words "leadership" and "cooperation." The word "leadership" was valued more highly by the lower socio-economic group of pupils than by the upper socio-economic group of pupils. The word "cooperation" was valued more highly by the middle socio-economic group of pupils than by the highest socio-economic group of pupils.

Teachers of agriculture predicted the meaning which their pupils placed on the 11 words and phrases studied equally well for the 12 subgroups of pupils consisting of three socio-economic levels of pupils in each of the four secondary school grades. Teachers of agriculture were more in agreement with the connotative meaning which junior and senior vocational agriculture pupils placed on the words and phrases studied than they were with the meaning freshmen and sophomore pupils placed on the same words and phrases. Teachers consistently underestimated the value which all vocational agriculture pupils as a group placed upon the words and phrases being studied.

AN INVESTIGATION OF CERTAIN CHARACTERISTICS ASSOCIATED WITH ADVISORY COMMITTEES OF LAY CITIZENS IN SELECTED LOCAL SCHOOL DISTRICTS IN ILLINOIS

John E. Terwilliger, Ed.D.
Department of Education
University of Illinois at Urbana-Champaign, 1966

Purposes. A trend toward increasing citizen participation in policy development for public education coupled with an apparent lack of substantial, empirical research knowledge on the subject suggested the need for the study. The literature on the topic of citizens' advisory committees in public education consists largely of testimonials enumerating effects, primarily the beneficial but sometimes the detrimental, which might be expected as a result of the existence of an advisory committee of lay citizens. The study was completed to determine whether or not it is possible to demonstrate an associational relationship between the existence of a citizens' advisory committee and selected characteristics of lay citizens.

The specific questions investigated related to a supposed beneficial relationship between the existence of a citizens' advisory committee and: (1) the attitudinal support of the schools by lay citizens, (2) the knowledge about schools possessed by lay citizens, (3) the actual and desired sources of school information for lay citizens, and (4) the types and amounts of school information desired by lay citizens.

Method. The sample for which data were collected was comprised of 300 individuals, selected at random, 50 each, from among the telephone directories of six different Illinois communities. School districts in three of the six communities had in operation a school-sponsored advisory committee of lay citizens. The remaining three districts did not have advisory committees but were matched with three districts on the criteria of administrative structure, assessed valuation, pupil enrollment and geographic area.

Data for the study were collected by means of a mailed questionnaire with follow-ups being made by mail, personal interview and telephone. The questionnaire asked for information concerning biographical characteristics of the respondent, opinions of the respondent comparing his schools with other schools, opinions of the respondent evaluating how well his school was meeting the educational needs of his district, information concerning the respondent's actual and desired sources of school information, and an indication of the respondent's desire for additional school information. Statistical analyses of the data were by means of Chi-square and analysis of variance methods.

Findings. Analysis of the data collected indicated a finding of no statistical difference associated with the existence of a citizens' advisory committee and the opinions of lay citizens concerning their schools. A statistically significant difference was found in the knowledge about schools possessed by lay citizens in the districts studied. This difference, associated with the existence of a citizens' advisory committee, was of such a nature that citizens in districts with advisory committees were better informed about school affairs than were their counterpart citizens in districts without citizens' advisory committees. No statistically significant differences were found relative to the actual or desired sources of school information or for the desire of respondents for additional school information.

The findings of this study indicated a need for further study to investigate associational relationships between citizens' advisory committees and characteristics of lay citizens. The findings also indicated the need for experimental studies that would investigate relationships between citizens' committees and characteristics of citizens and educational programs.

ANALYSIS OF OPPORTUNITIES FOR PARAPLEGICS IN CERTAIN ORNAMENTAL HORTICULTURE OCCUPATIONS

Irvin Ester Ashley, Jr., Ed.D.
Department of Education
University of Illinois at Urbana-Champaign, 1968

The problem. The primary purposes of the study were to determine (1) whether or not paraplegics possess the physical competencies required for employment in the occupational area of ornamental horticulture, (2) whether or not certain ornamental horticulture activities could be performed by paraplegics from a wheelchair, and (3) whether or not paraplegics possess a realistic evaluation of their physical abilities to perform certain physical activities involved in ornamental horticulture occupations.

The procedure. Twenty paraplegics who were students at the University of Illinois or who were alumni of the University of Illinois were selected for participation in the study. Only those paraplegics with injuries to the spinal cord at or below the sixth thoracic vertebrae of the vertebral column were selected for participation in the study.

The 20 paraplegics rated their ability to perform ten selected activities in ornamental horticulture. A panel of ornamental horticulture judges rated the 20 paraplegics in the performance of these same activities. The correlated t-test was used to compare the self-evaluations by the paraplegics with the performance ratings by the panel of ornamental horticulture judges. The chi-square test and the Pearson product-moment correlations were also used to analyze data obtained from the 20 paraplegics studied.

The findings. Analysis of these data obtained from the self-evaluations by the 20 paraplegics studied regarding their ability to perform ten selected activities in ornamental horticulture and the ratings by the performance judges of the paraplegics' ability to perform these activities revealed that the 20 paraplegics studied did possess a realistic evaluation of their physical ability to perform the ten selected activities in ornamental horticulture. Age, longevity of disability and work experience after onset of disability appeared to be contributing factors to the competency of the 20 paraplegics to self-evaluate their physical ability to perform the ten selected activities in ornamental horticulture. These data also revealed that alumni and senior students possessed a more realistic evaluation of their physical abilities to perform the ten activities in ornamental horticulture than did juniors, sophomores, or freshmen.

Ratings by the performance judges of the ability of the 20 paraplegics to perform ten selected activities in ornamental horticulture revealed that the 20 paraplegics studied did possess the physical competencies necessary for performing the ten selected physical activities in ornamental horticulture.

Statistical correlations between selected personal data factors and the self-evaluation scores of the paraplegics studied revealed that age was the only correlation which approached significance at the .05 level of significance.

Based on the investigator's observations of the physical competencies displayed by the 20 paraplegics studied, on a visual examination of the

paraplegics' performance scores, and on a perusal of the job descriptions available for certain jobs in the occupational area of ornamental horticulture, the investigator concluded that the types of job opportunities available to paraplegics interested in ornamental horticulture range from skilled labor to professional positions.

The information obtained from a limited survey of existing ornamental horticulture facilities in Champaign County and from a review of the literature on the design and specification of buildings to permit their use by the physically handicapped revealed that if some of the existing architectural barriers in ornamental horticulture occupations were eliminated, greater employment of the physically handicapped would be possible.

The recommendations. The primary objective of the recommendations was to indicate how teachers of agricultural occupations and rehabilitation counselors might work together in the development of occupational education programs and facilities in agriculture to provide services to paraplegics and to the physically handicapped. The programs and facilities recommended were: (1) agricultural laboratories for physically handicapped persons with agricultural backgrounds, who use agricultural knowledges and skills in their jobs, or who need agricultural work for its therapeutic values and (2) secondary and post-secondary programs to prepare physically handicapped students and adults for the world of work.

THE EFFECTS OF SELECTED OCCUPATIONAL INFORMATION UPON THE ASPIRED SOCIOECONOMIC STATUS OF PUPILS IN AGRICULTURAL OCCUPATIONS COURSES

Loyd Ray Hughes, Ed.D.
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University of Illinois at Urbana-Champaign, 1968

Purpose. Part I of the study was to determine the profile of the pupils in certain agricultural occupations courses with regard to socioeconomic status, aspired socioeconomic status, fathers' occupations and the pupils' stated occupational goals. Part II of the study was an experiment to ascertain the effect of specific instruction related to occupational information upon the socioeconomic aspirations of the pupils studied.

Procedure. The sample for the study consisted of 142 pupils enrolled in agricultural occupations courses in grades nine, ten and eleven in six high schools which were randomly selected from the population of 17 high schools located in a four-county area of east-central Illinois.

Prior to the start of the experiment, the writer conducted pretests at each school which consisted of gathering descriptive data about the pupils and administering the Sims Social Class Identification Occupational Rating Scale to the pupils in the study to determine their socioeconomic status and aspired socioeconomic status. The pupils were then randomized into a control group and an experimental group.

The pupils in the experimental group were provided information related to occupational information and guidance for two weeks. After the experiment was completed the writer conducted the posttests which consisted of administering the Sims Social Class Identification Occupational Rating Scale to the pupils to determine changes in aspired socioeconomic status from pretest to posttest.

Findings and conclusions. The socioeconomic status of the pupils studied centered around the middle working class while the pupils aspired predominantly to middle-class occupations. There was a positive correlation between the socioeconomic status and the aspired socioeconomic status of the pupils.

There were 88 pupils in the study whose fathers were engaged in agricultural occupations while the fathers of 54 pupils were engaged in nonagricultural occupations. Ninety-four pupils aspired to agricultural occupations while the remaining 48 aspired to nonagricultural occupations. Sixty-eight, or 72 percent of the 94 pupils who aspired to agricultural occupations, aspired to occupations in agricultural production.

There was no significant difference between the pupils in the experimental group and the pupils in the control group in the amount of change in aspired socioeconomic status from pretest to posttest as measured by scores on the Sims Social Class Identification Occupational Rating Scale.

Within the experimental group, pupils in the ninth grade changed their aspired socioeconomic status from pretest to posttest significantly more than did pupils in the tenth or eleventh grade.

Data relative to the aspired socioeconomic status of pupils seemed to indicate that one of the determiners of pupils' aspirations is their socioeconomic level.

The number of pupils who aspired to nonagricultural occupations suggests to the writer that these pupils may not have been effectively counseled concerning occupational preparation prior to enrolling in agricultural courses or had changed their occupational choice since enrolling.

Considerably more emphasis should probably be placed upon providing effective occupational information and guidance concerning nonfarm agricultural occupations to pupils enrolled in agricultural occupations courses, especially in grades nine and ten.

OCCUPATIONAL EDUCATION FOR MEAT INSPECTION AND LABORATORY ANIMAL CARETAKER JOBS

Leon Albert Mayer, Ed.D.
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University of Illinois at Urbana-Champaign, 1968

The problem. The primary purposes of the study were to determine (1) the opportunities for employment and (2) the educational requirements of meat inspectors and of laboratory animal caretakers in a 30-county area in northern Illinois.

The procedure. Thirty counties in northern Illinois were identified as the study area. Employers of meat inspectors and laboratory animal caretakers in the 30-county area were interviewed for information on job opportunities. Thirty representatives of animal laboratories rated the level of the competencies needed by laboratory animal caretakers, and 30 representatives of meat inspection agencies rated the level of the competencies needed by meat inspectors. The chi-square test was used to compare the level of the competencies needed by new workers and by experienced workers and to identify items of competency for which the level of competency needed was not substantially different for meat inspectors and for laboratory animal caretakers. The analysis of variance test and the Pearson correlation were also used to analyze data obtained from the respondents.

The findings. The survey of animal laboratories and meat inspection agencies in northern Illinois revealed that substantial opportunities were available for employment of persons as laboratory animal caretakers and as meat inspectors in the 30-county area studied, and that educational programs were needed to prepare persons for these two jobs.

Sixty-three items of competency were identified as needed by new workers in laboratory animal caretaker jobs, and 12 additional items of competency were identified as needed by experienced workers in laboratory animal caretaker jobs. Fifty-one items of competency were identified as needed by new workers in meat inspection jobs, and ten additional items of competency were identified as needed by experienced workers in meat inspection jobs.

Sixty-six items of competency were identified for which the experienced laboratory animal caretakers needed a significantly higher level of competence than the new workers in laboratory animal caretaker jobs; and 48 items were identified as needed at a significantly higher level of competence by experienced workers than by new workers in meat inspection jobs.

The respondents were not in general agreement in their recommendations; however, they recommended on-the-job training most often as the most appropriate way for developing the competency needed by laboratory animal caretakers and by meat inspectors.

Twenty-three items of competency were identified for which the level of competence needed was not significantly different for new workers in laboratory animal caretaker jobs and in meat inspection jobs; and 21 items of competency were identified for which the level of competence needed was not significantly different for experienced workers in laboratory animal caretakers jobs and in

meat inspection jobs, and for an additional nine items which could not be included in the statistical test used, the level of competence needed appeared to be not substantially different.

Significant differences were found for only 20 of the 336 statistical comparisons of the ratings of administrators, supervisors, and workers for the level of the competencies needed by laboratory animal caretakers and by meat inspectors. Agreement was higher among the three groups of laboratory animal caretaker respondents than it was among the three groups of meat inspection respondents.

The more formal education the respondents had completed, the higher they tended to rate the level of the competencies needed by meat inspectors; and, the longer the respondents had worked in their present job title, the higher they tended to rate the level of the competencies needed by new workers in laboratory animal caretaker jobs.

The recommendations. Several occupational education programs were recommended for preparing and upgrading workers for meat inspection and for laboratory animal caretaker jobs in northern Illinois. The programs recommended were these: (1) a high school program to prepare persons for new worker jobs; (2) a post-high school technology program to prepare persons for animal technician and applied animal science supervisory jobs; and (3) an adult education program for the in-service training of workers. Courses and course content were suggested for the three kinds of occupational education programs recommended.

A COMPARATIVE STUDY OF TWO CONCURRENT WORK-EDUCATION MODELS IN AGRICULTURE

John Franklin Bobbitt, Ed.D.
Department of Education
University of Illinois at Urbana-Champaign, 1969

The problem. The primary purposes of the study were to determine (1) whether or not there were significant differences between the concurrent work-education model without school released time and the concurrent work-education model with school released time regarding the attitudes that agricultural occupations instructors, pupils enrolled in the nonfarm agricultural occupations course and school administrators in schools offering nonfarm agricultural occupations have developed toward the supervised agricultural experience program and (2) whether or not there were significant differences between the concurrent work-education model without school released time and the concurrent work-education model with school released time regarding certain activities of agricultural occupations instructors and their pupils who were enrolled in nonfarm agricultural occupations courses.

The procedure. Pupils enrolled in nonfarm agricultural occupations courses, agricultural occupations instructors, and school administrators in 212 schools in the State of Illinois that had nonfarm concurrent work-education programs in agricultural occupations were the population for the study. The sample of schools offering either the concurrent work-education model with school released time or the concurrent work-education model without school released time was selected by matching the schools using one model with schools using the alternative model. Schools were matched on the population of the town in which the school was located and the enrollment in the high school. Twenty-eight schools were selected with 14 schools offering concurrent work-education with school released time and 14 schools offering concurrent work-education without school released time.

Instruments were developed by the investigator to determine the activities of pupils and of agricultural occupations instructors participating in the two concurrent work-education models. Instruments were also developed by the investigator to determine the attitudes toward the supervised agricultural experience programs of pupils, instructors and school administrators involved with either the concurrent work-education model with school released time or the concurrent work-education model without school released time.

Data were collected by the investigator during group sessions with the participants in the study. Research hypotheses were formulated and tested with a one-way analysis of covariance for significance at the .05 level.

The findings. Analyses of the data obtained from agricultural occupations pupils revealed there were no significant differences between the two concurrent work-education models regarding the attitudes of pupils toward the supervised agricultural experience program. There were no significant differences between the two models regarding the attitudes of instructors toward the supervised agricultural experience program. There were no significant differences between the two concurrent work-education models regarding the attitudes of school administrators toward the supervised agricultural experience programs.

There were no significant differences between the two concurrent work-education models on 28 of 38 activities engaged in by agricultural occupations

instructors. Also there were no significant differences between the two concurrent work-education models on 29 of 44 activities engaged in by agricultural occupations pupils.

Conclusions. The concurrent work-education model with school released time and the concurrent work-education model without school released time offer similar experiences and should be retained as options in agricultural occupations.

THE EFFECTIVENESS OF STRUCTURED OCCUPATIONAL EXPERIENCE FOR INSTRUCTORS OF AGRICULTURAL OCCUPATIONS

Alfred James Mannebach, Ed.D.
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Purpose. The purpose of the study was to determine the effect of an intesive four-week experimental education program, involving structure, on-the-job, occupational experiences in agricultural firms, plus related classroom instruction, on the behavior of instructors of agricultural occupations.

Procedure. The population for the study consisted of Illinois high school and junior college instructors of agricultural occupations who were conducting concurrent work-education programs in agricultural firms and who applied to enroll in the experimental education program, offered in the 1968 summer session by the Agricultural Education Division, University of Illinois. Two independent random samples of 11 high school instructors were selected from the 22 high school instructors who applied. One group of 11 high school instructors was designated by lot as the experimental group while the other group was designated as the control group. The persons selected f the experimental group were permitted to enroll and complete the experimental education program. The control group did not receive any organized in-service education, instruction, or occupational experience during the study.

All seven junior college instructors who applied were accepted and completed the experimental education program. They completed three pretest instruments prior to the beginning of the program. On the evening prior to the termination of the experimental education program, the high school and junior college instructors enrolled participated in a posttest. Both groups of instructors completed three instruments designed to evaluate partially the experimental education program. The instruments completed were: (1) a test of knowledge concerning the movement of products from agricultural firms to the customers, (2) an attitude scale designed to assess the attitudes of instructors toward conducting programs of nonfarm agricultural occupations, and (3) an inventory to ascertain the instructors' evaluation of certain activities in which pupils placed in agricultural firms might have an opportunity to participate. The 11 high school instructors in the control group also completed the evaluation instruments.

In addition, evidence consisting of objective ratings and descriptive statements concerning the effectiveness of certain aspects of the experimental education program was collected from the participating agricultural businessmen and the high school and junior college instructors who completed the program.

Findings and conclusions. Of the nine hypotheses formulated for the study, one yielded significantly different results at the .05 level. The mean posttest scores of the junior college instructors completing the experimental education program were significantly higher than their mean pretest scores as measured by the test of knowledge used.

No significant differences were found based on the other hypotheses formulated for the study. The findings of no significant differences may have resulted because only experienced instructors, who were conducting

programs of nonfarm agricultural occupations, were involved in the study. The overall reaction to the experimental education program, as rated by the participating agricultural businessmen and the high school and junior college instructors enrolled, was excellent to good. The overall ratings and the written reactions of the participating agricultural businessmen and the instructors enrolled indicated that the experimental education program was meeting a critical in-service need of instructors of agricultural occupations.

The cooperation and enthusiasm of the participants suggested to the writer that teacher educators in agricultural education should continue to develop and to offer short-term, in-service educational programs to help instructors keep current the knowledges and skills needed to prepare pupils for entry into nonfarm agricultural occupations.

Instructors of agricultural occupations should continue to enroll in in-service educational programs to keep current their knowledge of technical subject matter and methods of teaching. Considerably more emphasis should probably be placed upon developing instruments to evaluate new and innovative programs in agricultural education.

VOCATIONAL EDUCATION INSTRUCTION SIMILARITIES IN CERTAIN CONTENT AREAS IN THE SECONDARY SCHOOLS

Jasper Sloan Lee, Ed.D.
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Objectives. The major objectives of this study were (1) to ascertain which of certain selected skills teachers of secondary level courses of agricultural occupations, distributive occupations, home economics occupations, office occupations, and trade and industrial occupations are attempting to teach; (2) to determine whether or not there is any similarity in the instructional content in the various vocational education courses in the secondary schools of Mississippi; and (3) to determine the level of proficiency which the teachers attempt to teach pupils certain skills.

Procedure. An instrument listing 92 skills was submitted to a sample population of 282 secondary level vocational education teachers. The teachers were stratified according to whether they were teaching agricultural occupations, distributive occupations, home economics occupations, office occupations, and trade and industrial occupations. The teachers indicated which of the skills they taught, and the level of proficiency which they attempted to teach pupils each of the skills by responding to a Likert-type rating scale. Statistical procedures involved the computation of mean levels of proficiency at which each skill was taught and the computation of a chi square value for each skill taught.

Findings. The findings of the study were:

1. Secondary level teachers of vocational education taught only a few of the skills included in this study at high to very high levels of proficiency.

2. Many of the vocational teachers taught a large number of the skills.

3. None of the skills were taught by all five vocational disciplines at a similar level of proficiency.

4. Thirteen of the skills were taught at similar levels by teachers of two, three, or four of the vocational education disciplines.

   a. The skills taught at similar levels of proficiency by teachers of four vocational education disciplines were "selecting a career" and "practicing good citizenship."

   b. The skills taught at similar levels of proficiency by teachers of three of the vocational education disciplines were "exercising leadership abilities," "using inventory methods," "communicating orally," and "using parliamentary procedure."

   c. The skills taught at similar levels of proficiency by teachers of two vocational education disciplines were "grooming," "practicing good etiquette," "advertising," "getting a job," "communicating orally," "practicing good human relations," and "exercising leadership abilities."

AN ANALYSIS OF COSTS AND BENEFITS TO STUDENTS FOR TECHNICAL AGRIBUSINESS EDUCATION

Stanley Douglas Patterson, Ed.D.
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Purposes. The major purposes of the study were (1) to ascertain the private costs for two years of post-secondary technical education in agribusiness and (2) to analyze certain benefits that agribusiness employees receive from two years of post-secondary technical agribusiness education. A secondary purpose of the study was to obtain data on certain background and employment variables of graduates of post-secondary technical agricultural education programs.

Procedures. The study procedure involved five major tasks.

1. The definition and identification of the target population from graduates of post-secondary, technical programs in agricultural supply and agricultural mechanics.

2. The definition and identification of comparison populations from the high school classmates of subjects in the target population.

3. The development of a survey instrument for collecting data on certain occupational factors and background information of agribusiness employees in the study.

4. The collection of data from the study subjects, the high schools, and the post-secondary institutions.

5. The analysis of data to determine the private costs and benefits of two years of post-secondary, technical education in agribusiness.

Population. Graduates of Illinois post-secondary technical agribusiness programs who were employed in either agricultural supply occupations or agricultural mechanics occupations were the primary population for the study. Two comparable populations were selected for comparison with the primary population. One comparison population consisted of high school classmates of the members of the primary population, who had received no post-secondary education, and who were employed in agricultural supply occupations or agricultural mechanics occupations. The second comparison group consisted of high school classmates of the members of the primary population, who had received two years or less of nonagricultural post-secondary education, and who were employed in agricultural supply occupations or agricultural mechanics occupations.

Instrumentation. A survey instrument was developed by the investigator and mailed to each employee in the study population. The instrument consisted of an agribusiness employee survey and a job satisfaction scale. The agribusiness employee survey was designed to obtain data on certain personal variables and occupational variables of the agribusiness employees. A pilot study was utilized in formulating and selecting items for the employee survey. The job satisfaction scale was adopted for the survey instrument from the "Job Satisfaction Blank" by Robert Hoppock.

Findings. Conclusions were based on returns from 95 percent of the primary population, 79 percent of the comparison population with no post-secondary education, and 100 percent of the comparison population with post-secondary nonagriculture education. The average age of participants in this study was approximately 21 years. The average length of employment was 14 months. Over three-fourths of the technical agriculture graduates reported that their fathers were employed in farming. Graduates of technical agriculture programs were receiving average monthly salaries of $549 in agricultural supply occupations and $433 in agricultural mechanics occupations. Graduates of technical agriculture programs who were employed in agricultural supply occupations were receiving significantly higher salaries than their high school classmates who had received no post-secondary education. No differences were found between the primary population and the comparison populations regarding job satisfaction or fringe benefits. Differences were found between the types of technical agriculture education programs regarding the costs of technical education.

SOCIOECONOMIC FACTORS RELATED TO THE MORALE OF ADULTS IN AN ECONOMICALLY DISADVANTAGED RURAL AREA

Vicente Abobo Quiton, Ed.D.
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Purposes. The first part of the study was intended to determine the socioeconomic profile of rural families in an economically disadvantaged county, and to investigate selected socioeconomic factors that may be related to the family income differences and the morale level of rural adults. The second part of the study was an experiment to determine the effects of a family-centered, vocationally oriented educational program on the morale and the general adjustment of economically disadvantaged rural adults.

Method. The population of Part I of the study consisted of rural families in an economically disadvantaged county in southern Illinois. The sample included 82 rural families who were selected randomly from among the rural families in the county. In Part II, the population consisted of disadvantaged rural families in two southern Illinois counties. Two independent random samples of 12 disadvantaged rural families were selected randomly. One group was designated as the experimental group, and the other as the control group. The experimental group participated in a family-centered, vocationally oriented educational program for one year. The morale and the general adjustment level of both groups were measured before and after the experimental program.

The instruments used in data collection were: (1) the Family Data Record, (2) the Minnesota Survey of Opinion, and (3) the Sims SCI Occupational Rating Scale. The analysis of variance, the Pearson product-moment correlation, and the analysis of covariance were used in the statistical analysis of the data.

Findings. Economic deprivation among the rural families studied was indicated by low family income, low valuation and poor condition of residences, lack of certain household facilities, and the high percentage of families receiving public aid. Rural adults with low incomes had significantly lower morale, poorer general adjustment, lower socioeconomic status, and lower educational attainment than those with higher incomes. There were significant, positive correlations between morale and the following variables: general adjustment, socioeconomic status, and educational attainment.

In the experimental study, although a slight increase in morale and general adjustment was observed for the experimental group, the analysis of covariance found no statistically significant differences in the amount of change in the morale and the general adjustment between the experimental group and the control group.

COMMUNICATIONS AS A FACTOR IN NONFARM AGRICULTURAL EMPLOYMENT

Edwin Wills Vernon, Ed.D.
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Purposes. The purposes of the study were to (1) identify the words agribusiness employers associated with success in an employee, (2) determine whether or not pupils at the four high school grade levels and three socioeconomic status levels differed significantly in their connotative understandings of the words associated with employee success, (3) determine whether or not pupils at three socioeconomic status levels and four levels of agricultural occupations course work differed significantly from employers in the perception of their responses to certain terms, and (4) determine whether or not agricultural occupations teachers could accurately perceive the connotative responses of agribusiness employers to the test concepts.

Procedure. Forty-seven randomly selected agricultural business employers assisted in developing a list of 21 words. These are the words that interpret the traits that contributed most to employee success. The 21 concepts were arranged on a semantic differential scale and administered to 339 agricultural occupations pupils from ten randomly selected Illinois high schools. The pupils were grouped into three socioeconomic status levels and four levels of course completion for the analysis of responses. Responses were compared by multivariate analysis of variance techniques. Seven pupil groups and one group of agricultural occupations teachers were compared with employers in their responses to the stimulus concepts.

Alternating the test forms as they were distributed divided the pupils into the two major groups, "A" and "B." The two groups were those pupils responding as themselves and those pupils responding as employers.

The 39 teachers were stratified by size of department enrollment, randomly sampled, contacted by phone, and surveyed by mail.

Findings

1. Twenty-one of the concepts identified by the employers as being essential to successful employment in agribusinesses were used as stimulus concepts.

2. The responses of the teachers differed significantly from the responses of the employers on 12 of the 21 concepts. The employers valued each of the significant terms more highly than the teachers estimated they would.

3. The term "enthusiastic" was a statistically significant term in each comparison. In each analysis the employers valued this term more highly than the comparison group.

4. Socioeconomic status did not seem to be a factor in the perception of the employers' responses. However, the lower socioeconomic status pupils were the only group who failed to respond to any of the significant stimulus concepts more favorably than the employers.

5. Socioeconomic status was not identified as a significant factor in determining the differences in the responses of the pupils and the employers tested.

6. High school grade level could not be identified as a significant factor in the pattern of response or of perception of the employers' response to the stimulus concepts.

LEVELS OF INTEREST IN ORNAMENTAL HORTICULTURE OF DIFFERENT ETHNIC GROUPS

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Objectives

1. To determine whether or not there is a difference in interest in ornamental horticulture within two ethnic groups, by socio-economic levels.

2. To determine how the interest levels in ornamental horticulture differ among the ethnic groups.

3. To determine whether or not there should be a special effort to inform black people about ornamental horticulture.

4. To determine whether or not the interest pattern of black people toward ornamental horticulture can be altered, if they are given equality in responsibilities.

Method. The population for Part I of the study consisted of high school pupils grade nine through 12 in the St. Anne High School, St. Anne, Illinois. The population was confined to male pupils.

There were six independent groups with ten respondents in each group, determined by the three social classes that were used in the study; lower, lower middle, and middle. There were three social classes of whites and three social classes of blacks.

The Sims (SCI) Occupational Rating Scale was used to place the pupils into the six independent groups.

There were ten white respondents in the lower social class; ten black respondents in the lower social class; ten whites in the lower middle class; ten blacks in the lower middle class; ten whites in the middle class and ten blacks in the middle class.

The population for Part II of the study consisted of nine black workers and nine white workers who were employed in an ornamental horticulture occupation with the Chicago Park District. The instruments completed were: (1) the Sims (SCI) Occupational Rating Scale, (2) Pupil Data Record Form, (3) the Employee Evaluation Questionnaire, (4) Walker's Vocational Agriculture Interest Inventory and (5) Hamilton's Agricultural Occupations Interest Scale.

Findings. Of the six hypotheses formulated for the study, three yielded significantly different results at the .05 level.

There were significant differences in interest as measured by Walker's Vocational Agriculture Interest Inventory between black pupils and white pupils in the lower, lower middle and middle socioeconomic classes.

There were no significant differences in interest as measured by Hamilton's Ornamental Horticulture Scale between black pupils and white pupils in the lower, lower middle and middle socioeconomic classes.

There was a significant difference in mean scores as measured by the Walker Vocational Agriculture Interest Inventory among the black pupils in the lower, lower middle, and middle socioeconomic classes.

THE ASPIRATIONS AND EXPECTATIONS OF MALAYSIAN AGRICULTURAL PUPILS AND STUDENTS REGARDING OCCUPATIONS AND EDUCATION

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Introduction. Concern for jobs and future security have been on the increase among youth of today. What concerns do Malaysian agricultural pupils and students have regarding their future occupational and educational plans? What occupational and educational aspirations do they have? Are their aspirations consistent with their expectations? Finding answers to these and other related questions was the main objective of the study.

Problem. The main problem of the study was: (a) to determine what kinds of aspirations and expectations the pupils and students of the Malaysian agricultural institutions have and whether or not their aspirations and expectations are related to certain selected socioeconomic and cultural factors; (b) to determine what pupils and students feel their problems are in making decisions about their occupational and educational plans and what they feel they need in terms of information and guidance to help them with their plans.

Method. The study was conducted using as subjects (a) 103 second-year vocational agricultural high school pupils of the School of Agriculture and (b) 145 third-year and 165 second-year post-high, preuniversity students of the College of Agriculture, Malaysia.

Data were secured through the group administration of a questionnaire, in which participants responded to items listed on questionnaire forms. Percentages, frequencies and chi square techniques were the main tools used to analyze the data. Chi square tests determined whether or not null hypotheses could be rejected at the .05 level of significance.

Findings. A majority of the pupils and students who participated in the study aspired to achieve occupational placement and education in the high-level categories, if they had their choice. However, cognizant of the various limitations they had, both personal and environmental in which they had little control, a majority of them did not expect to be able to achieve their aspirations. Many were uncertain about their future educational plans and thus expected to be employed in occupations concomitant with the level of training and education they were receiving from the institutions in which they were enrolled, at the time of the study.

Due to the rather homogeneous backgrounds of the population studied, the majority of the selected socioeconomic variables had no direct influence on the participants' aspirations and expectations. Those factors that were found to be related significantly to participants' aspirations and expectations were sex, father's educational status, father's income, father's occupation, past farm experience and academic standing.

The majority of the population studied indicated that they had neither a problem of deciding what kinds of occupations were suitable to them nor a problem of getting employment upon graduation from the institutions in which they were enrolled at the time of the study. However, they maintained they had problems of one form or another if they desired to continue their education and plan for future jobs. They indicated that they wanted help and information to assist them in overcoming their problems.

ACADEMIC ACHIEVEMENT MOTIVATION OF STUDENTS OF AGRICULTURAL EDUCATION AND ITS RELATIONSHIP TO CERTAIN VARIABLES

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The prediction of success in agricultural education at the secondary school level has been a perennial problem for the educators in agriculture. Little is know, however, about academic achievement motivation and how academic achievement motivation influences achievement of students in agricultural high schools. This research was concerned with the academic achievement motivation for Korean students in agricultural education utilizing and objective type inventory. Attention was focused on identifying the relationships between academic achievement motivation and the performance of students in agricultural education. Relationships between academic achievement motivation and certain other variables were also studied.

Purpose. The purpose of this study was to investigate the academic achievement motivation of students in agricultural education and its relationship to academic performance in agricultural high schools in Korea.

Method. Stratified random sampling procedures were utilized for the selection of the sample. The population was stratified into rural and urban agricultural high schools. One thousand four hundred and sixty students and 191 teachers of agriculture were sampled from 13 agricultural high schools.

Data were collected by administering four instruments, Modified Academic Achievement Motivation Inventory, Sims' SCI Occupational Rating Scale, a questionnaire, and Teacher's Attitude Toward Agriculture Scale. Also, the students' official school records were used.

The data collected were treated with multivariate analysis of variance, one way analysis of variance, multiple regression analysis, correlational analysis, and Chi square tests, using the IBM 360 computer.

Findings and interpretation

1. The reliability of the instruments used in the study was satisfactory. The reliability for the Modified Academic Achievement Motivation Inventory was 0.85, and the reliability for the Teacher's Attitude Toward Agriculture Scale was 0.89.

2. Academic achievement motivation of the students was correlated to the achievement in all the courses in agricultural education. Grades in agriculture courses had a higher correlation coefficient with academic achievement motivation than the grades in other courses taken by the students.

3. Higher academic achievement motivation seemed to lead a student to higher performance in agricultural education. Achievement in agriculture courses contributed the most to this difference.

4. Academic achievement motivation of the student was not correlated with the intelligence of the student. However, both academic achievement motivation and intelligence level were reliable predictors for potential achievement of students in agricultural education.

5. The students grouped by years in the program, and by their major fields of study were similar in their degree of academic achievement motivation. Performance of students, however, varied by major fields of study.

6. Academic achievement motivation was not simply influenced by family status. Academic achievement motivation, however, was influenced by external cues such as the pressure and the encouragement of their parents.

7. The academic achievement motivation scores of students were not associated with their teachers' attitudes toward agriculture.

8. The teachers' attitude toward agriculture, as well as the academic achievement motivation of the students, were not different in rural areas and in urban areas.

RELATIONSHIP OF OPERATIONAL TECHNIQUES USED BY JUNIOR COLLEGE AGRICULTURAL ADVISORY COMMITTEES TO COLLEGE PERSONNEL ATTITUDE AND PROGRAM EVALUATION CRITERIA

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Purposes. To determine which operational techniques should be used by junior college agricultural advisory committees, to determine the current status of junior college agricultural advisory committees, to identify relationships between the number of techniques used and college personnel's attitude of worth toward committees, and to identify relationships between the number of techniques used and attrition rate of students, percentage of graduates employed, and percentage of graduates employed in occupations for which trained.

Methods. The population consisted of all Illinois agribusiness and agrimechanics junior college advisory committees. The sample was selected using three criteria: (1) program served by committee was of two years duration, (2) program served had a graduate by June 30, 1970, and (3) coordinator agreed to participate.

Instruments were developed and validated with a pilot study. Instruments included: (1) an instrument to measure college personnel's attitude toward advisory committee worth, (2) a questionnaire to obtain supplemental information, and (3) a questionnaire to determine techniques employed by committees. The data were obtained from coordinators, administrators, and advisory committee members.

The data were used to answer 13 specific questions and to test seven research hypotheses. Chi square, one-way analysis of variance, and correlation statistics were employed to analyze data.

Findings

1. Thirty-two of 72 techniques identified were deemed important for use by junior college occupational advisory committees.

2. No significant differences appear to exist between agribusiness and agrimechanics advisory committees.

3. No significant relationships appear to exist between the number of techniques employed and college personnel's attitude of worth toward committees.

4. No significant relationships appear to exist between the number of techniques employed and evaluation criteria of programs served by committees.

A COMPARISON OF TEACHER AND STUDENT PERCEPTIONS OF CERTAIN OBJECTIVES FOR THREE AGRICULTURAL OCCUPATIONS CURRICULUMS IN ILLINOIS JUNIOR COLLEGES

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University of Illinois at Urbana-Champaign, 1971

Purpose. The purposes of the study were to (1) ascertain whether or not significant differences existed in teachers' and students' perceptions of objectives for three curriculums in the agricultural occupations area; agricultural production, agricultural mechanics, and agricultural business management, (2) compare the degree to which teachers and students perceived the meaning of certain objectives for each of the curriculums, and (3) determine whether or not there were significant differences among teachers, within each curriculum, in their perceptions of the objectives for each of the curriculums studied.

Procedure. The population consisted of 21 Illinois junior colleges which were offering at least one of the major agricultural occupations curriculums during 1969-70 academic year. A random sample of ten junior colleges was selected from the 21 institutions in the population. The respondents consisted of 406 agricultural occupations teachers and students in the ten selected junior colleges. Instruments developed and used in the study were adaptations of the semantic differential technique. The instruments consisted of three forms, each designed to measure the connotative meanings of ten selected objectives held by teachers and students involved in each of the curriculums studied. The statistical treatments utilized to analyze the responses were: (1) multivariate analysis of variance, (2) analysis of variance, and (3) Kendall's Coefficient of Concordance.

Findings

1. Teachers and students in the three agricultural occupations programs appeared to have similar perceptions of the objectives for their respective curriculums.

2. Comparisons of the responses of teachers and those of their students in each of the curriculums studied revealed no significant differences in the connotative meanings of the objectives held by them.

3. Teachers in each major curriculum appeared, in general, to have similar agreements regarding their perceptions of the objectives for their respective curriculums. The exception to this was the teachers of agricultural business management who significantly disagreed among themselves regarding their perceptions of the objectives.

4. Generally, teachers of agricultural occupations with various years of teaching experience or teachers in various age groups studied, did not seem to perceive the selected objectives differently.

5. In the agricultural mechanics and in the agricultural production curriculums, the various course grades expected by students or the interest level in the course, in general, seemed to be related to students' perceptions of certain objectives for their respective curriculums.

6. For the agricultural mechanics students, the year of study, first or second, appeared to be related to their perceptions of certain curriculum objectives studied.

7. For the agricultural business management students, factors such as year in college, type of program, or grade expected in the course did not appear, in general, to be related to their perceptions of the objectives studied.